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New York's Arch of Victory

By Thomas Hastings

IN designing the proposed temporary arch in commemoration of the great victory to welcome our returning troops, the first important problem was to know where such an arch should be placed. It seemed evident that Fifth Avenue, unquestionably the most beautiful avenue in New York, with fewer high buildings and better architecture than anywhere else, should be the avenue to be decorated by such a feature. The question then arose in what part of Fifth Avenue to place the arch. Twenty-fourth Street is the only site where it is possible to put an arch, large in scale, where the abutments would be received without interfering with private property. One of the main piers of the arch rests on the little island where the Worth monument stands, and the other in the park itself. In this position the arch becomes the gateway to Fifth Avenue. In its relation to the present Altar of Liberty—which is already associated with such distinguished events as have transpired in New York—there was an opportunity to make an interesting composition, the two being related to each other to produce a real atmosphere of appropriateness and dignity. The thought was to make the arch framework classic in character and most impersonal, to hold in one general ensemble the splendid contributions which were given by the sculptors of New York. The Doric column was selected, and it has been our endeavor while following classic lines with restraint to be modern in spirit, expressing the life and character of these times and the vital events which have taken place. More especially was it the endeavor not to glorify war but to glorify Peace on Earth and Good-Will toward Men. The sculptures portray and tell the story of the events which have already become historic.

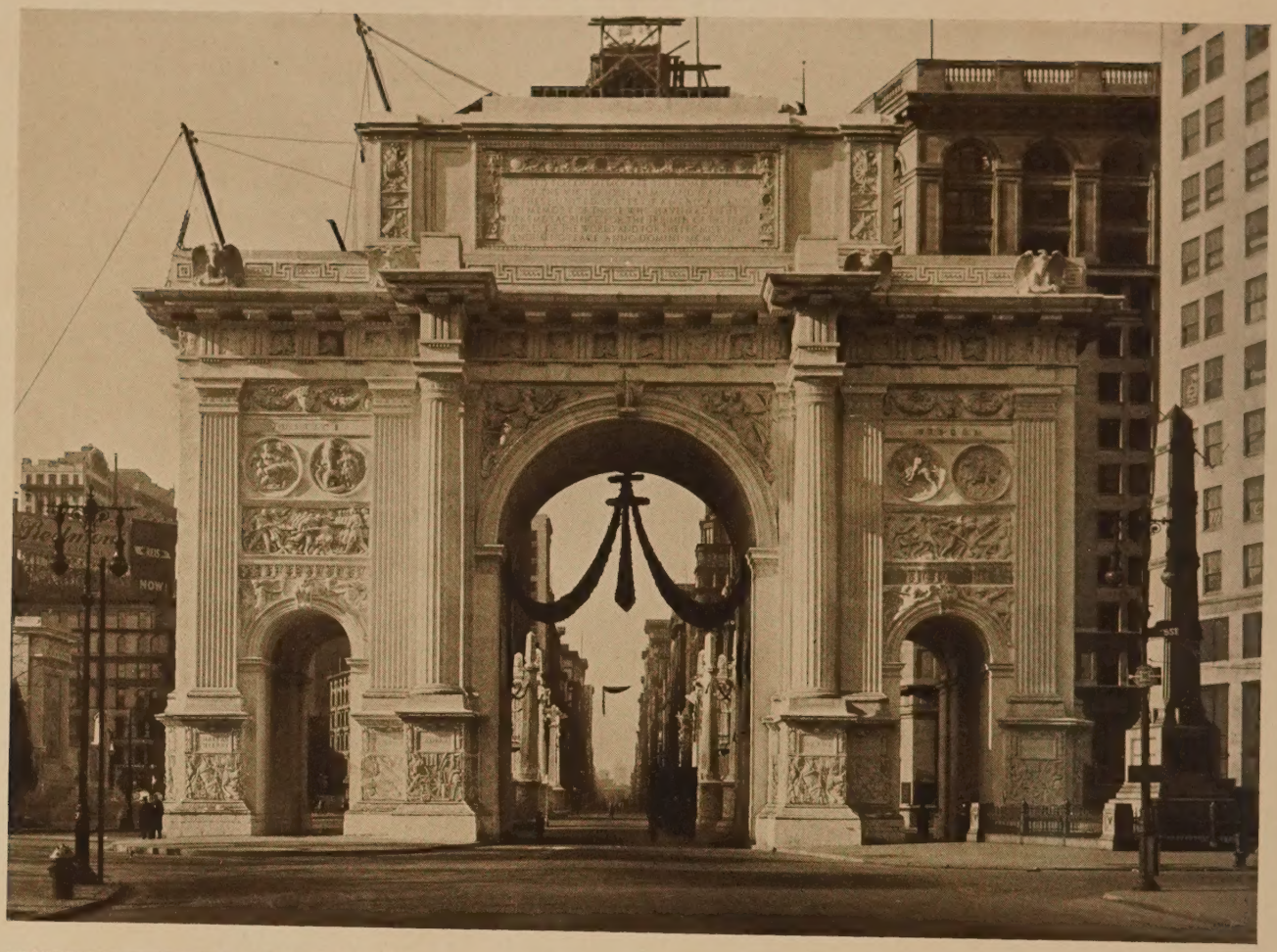
The arch is only a temporary Victory Arch. It was constructed in collaboration with twenty-four sculptors under the direction of a distinguished company of citizens, selected by Mr. Rodman Wanamaker for the purpose of welcoming home our soldiers and sailors from overseas. This temporary construction was built without any thought of influencing the final decision as regards the intended permanent memorial, either as to its site, the character of its design, or the selection of its authors.

The beauty of the arch—if there be any beauty—consists more in its actual proportions and in the opening and the picture which it so frames. There is only one arch that I know of—and I have made a careful study in the last few months—which is really symmetrically placed, and that is the "Arc de Triomphe" in Paris. There were six arches built in Rome, the three most important ones in the forum. There never were symmetrical surroundings around them. In the case of the arch of Septimius Severus there were the high bluffs of Capitol Hill with its buildings dominating on one side and a void on the other. These arches are all buried in confusion and none the less beautiful, because it is done with art. This is equally true of the two or three arches in London; the beautiful one in Lille; also Bordeaux, Beaune; and perhaps less so in Nancy, a city which was mostly planned and not evolved.

Mr. Paul W. Bartlett, with the two Piccirilli Brothers, made the sejugis on top of the arch. It shows a chariot with six horses forming a great group, with the crowning figure holding a great flag to illustrate the Triumph of Democracy. This group is colossal in scale. On one side, supported by the main columns, are Herbert Adams's large figures about 12 feet high; on the other side are Daniel C. French's corresponding two figures; these four figures represent Peace and Justice, Power and Wisdom. The spandrels of the two main arches have large allegorical figures modelled by Andrew O'Connor and Isidore Konti. The minor spandrels on the side arches, also containing allegorical figures, are modelled by C. A. Heber, F. M. L. Tonetti, Ulysses Ricci, and Philip Martiny. Aside from all of this work are numerous large panels, some of them approximately 16 feet long and 7 feet high, and others round medallions 7 feet in diameter. These different pictorial subjects were modelled by Mrs. Harry Payne Whitney, Messrs. Shrady, Flanagan, Perry, Beach, Young, Testi, Crenier, and Keck, while the eagles on the main cornice were modelled by Messrs. Roth and Harvey. Mr. Raphael Menconi did the architectural modelling on the arch. Mr. Adolph Weinman, who has given much study to the subject, did the two sphinxes. These pictorial bas-reliefs are high in relief, and some of them illustrate such subjects as the Battle of Ypres, for England; La Marne, for France; Château-Thierry, for America; La Piave, for Italy; Salonika, Palestine, etc. Some of these panels also illustrate the splendid services rendered by the various war organizations for relief, such as the Red Cross, Y. M. C. A., Knights of Columbus, Salvation Army, etc. There is a relief illustrating the ship-builders and what they have done, and also a relief devoted to the munition-makers, etc., etc. The aeroplane service has not been forgotten. In the main attic there is the following inscription:

> ERECTED TO COMMEMORATE THE HOMECOMING OF THE VICTORIOUS ARMY AND NAVY OF THESE UNITED STATES OF AMERICA, AND IN MEMORY OF THOSE WHO HAVE MADE THE SUPREME SACRIFICE FOR THE TRIUMPH OF THE FREE PEOPLES OF THE WORLD AND FOR THE PROMISE OF AN ENDURING PEACE.

The arch is 125 feet long, 40 feet wide, and 100 feet high. A difficult part of the task was to make the arch seem a massive, overtopping structure, despite the fact that in reality it is overtopped by the sky-scrapers which look down upon it from every hand. The design consists of a main central arch with two side arches and a surmounting group representing Democracy or the Triumph of Justice. While it is "not exactly like any other arch," yet it suggests in a way the Roman arch of Constantine which more than any other has been the model for triumphal arches the world over.



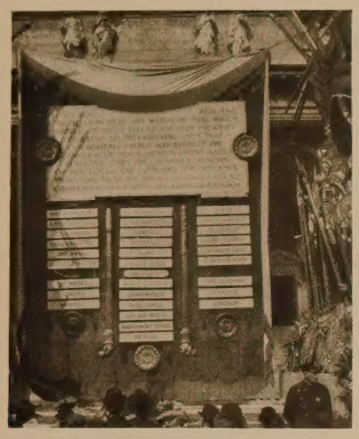
THE EAST END.

THE WEST END.

THE ARCH OF VICTORY FROM THE NORTH, AND THE EAST AND WEST ENDS.

The Decorations of the Avenue of Victory

By Paul Chalfin



The Lincoln inscription at the library.

I REMEMBER a pleasant conversation back in November with Mr. Hastings, when we laughed together over the realization in plaster of some of Piranesi's visions. The arch brought back the smell of these splendid old books and the touch of their fine paper.

Something of this remained in my mind afterward, and when the question of giving a character to the city decorations came up, a ghost from Piranesi's pages had me by the hand. It is not easy to reconcile Roman splendors with Washington Square —nor necessary. It would be positively out of place to bring them face to face with the delicate Louis XVI of the City Hall. But the pomp and richness of the arch almost indicated to me the right medicine for Madison Square; and the library was ready with a little touch of transformation to reconcile itself completely to heavy splendor. I am putting this all down to exonerate the triumph of our troops from having imposed the remnants of Roman grandeur upon my thoughts. The arch itself did that.

The camouflaged stand at 59th Street.

It is impossible not to dream that they should be tramping a way past encumbered splendors to a final temple upon the Capitol, bringing the spoils of Asia, or red-headed savages from Britain, white-skinned Teuton captives, or monkeys and peacocks from Syria.

All along, I have been haunted with the idea that Rome, after all, had achieved a League of Nations and kind of World Peace under the Antonines at that moment which, I believe, historians call "the happiest recorded era of the human race."

These, then, were my elements—Piranesi, Trajan and his race, and their great gift of mankind—the late autumn sunlight of the Roman peace, with its imperial splendor, its purple, its consequence, its great military movement back and forth among benefited peoples; and finally the thought of our own men, singularly returned to us with the little Roman touch upon their helmets of steel, and a little Roman suggestion in their antiquated but most modern arms, their engines of war, their projectiles from the hand, their gas, their armored tanks, all these singularly revived barbarisms so easy to draw together, in a panoply of arms, as if so many battering-rams or Testudos or like the burning oil and the heated stones of Titus and Diocletian.

Out of these elements of thought came the scheme of that strangely impressive purple, which I tried to make the note that indicates no nation, but all nations; no majesty, but the majesty of sacrifice; no imperialism, but that of perfect freedom; no pomp, but that of the high heart. It was not necessary at Washington Square to do more than hang a necklace or two around the lovely creation of McKim, Mead & White. But at Madison Square I have gone deeply into my Piranesi, and borrowed almost literally here and there, with the idea, earlier mentioned, of bringing imperial Rome into the background of our victorious troops. It is mere lap-dog yapping and barking at the feet of the great arch, and licking its face—one might say—with its dodging balloons, its tin spirals, and its gay streamers. I have been happy in seeing this splendid arch loom up with majestic simplicity behind these pylons and assert the culture of the ages beside these trivial improvisations.

It has been intentional that a great *entassement* should appear at this point as a slight reminder of the splendors along the way through the Forum at Rome, and it is by such effects that the Capitol looms up so immensely from the Arch of Septimus Serverus. I was happy to be able to perpetrate a little French *decor* at the Altar to Liberty and to bind a gilded palm upon the column in the finical fine manner of Paul Baudry and Luc Olivier Merson. It was at this point that we set the two sacraments of saluting Allied colors and of placing the triumphant foot upon the virgin sanded way beneath the arch.

These ceremonies went straight to the heart of New York, as if to show how little encouragement people really need to dream and to feel. What could have been worthy of that short cortege, with its great service flag, save the splendor of gold and purple? What ideas comport its majesty with a remote majesty of their own like those of ancient Rome? These trophies piled up with shields from heroic and fallen arms; these spears relinquished by heroic hands; these majestic trees hung with accoutrements of knightly valor according to the great etiquette of chivalry; these simple charges bringing back the naïve beginnings of heraldry; these curtains drawn from a military office and dyed in the purple of majesty—are from Rome. I could see nothing too splendid there, and I could find no jewel to place in the setting rarer than those words of Lincoln: "The solemn pride that must be yours to have laid so costly a sacrifice upon the altar of freedom"—a consolation not

(*Continued on page 91*)

THE ARCH OF VICTORY AT NIGHT.

DECORATIONS IN FRONT OF THE PUBLIC LIBRARY.

accorded the Mother of the Gracchi, and potent to touch even a universe —in sorrow. It was here that, so far as I know, for the first time, outside Washington, the States of the Union have participated altogether in the honoring of an event of a local character, and perhaps also it is first here that the Te Deum has been sung into the open air of America.

To take up the style or the meaning of the camouflage at 59th Street is perhaps superfluous. It suffices to say that the devices here used are absolutely scientific and were executed by men returned from France. The color, too, is in a certain sense a scientific expression—chromatic analysis along the lines of spectral sequence. We meant to make the jewelled arch a great bright bauble, and I believe we have succeeded. But arising as it does in brilliancy, I have wanted to accentuate at the base in the sculptures—alas, too white—the majestic images of the pain that we must forever contemplate, with the lofty and commanding idealism of the heroic women and the heroic men of this war.

The Arch of Jewels, 59th Street, at night.

Then, at the end of the road, at 110th Street, in the most modern part of the town, we have set up a gay and bright toy on a basis of scaffolding, using the very scaffolding structures themselves for decoration and applying our colors and ornaments with profusion.

The Hotel Pennsylvania

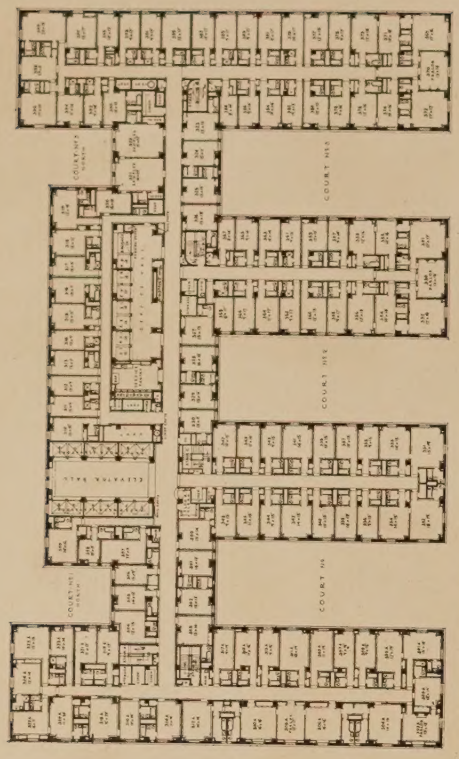
FEW problems that present themselves to the architects of to-day make a greater demand upon all of their resources than the construction of a great modern hotel. In the case of the Pennsylvania the problem had many rather exceptional features. Perhaps the largest one was that of providing every conceivable modern convenience, time-saving devices, the meeting of the needs more especially of the multitude of transient travellers that would find an immediately accessible hotel particularly desirable. The Statler service is a well-recognized standard, and their little book of slogans has become almost a part of our national hotel literature. It was to meet the requirements of these established standards and to improve upon them wherever possible, that was the problem of the famous architectural firm of McKim, Mead & White. At the very beginning was the fact that the Pennsylvania was to be the largest hotel in the world. To devise a plan that should meet the requirements of every creature convenience on the inside, and to construct an exterior whose great mass should manifest the purposes of the plan and at the same time be interesting architecturally were also primal considerations.

The building covers the ground space of two hundred by four hundred feet, and rises twenty-two floors from the street level to the roof. The four-storied base, faced with Indiana limestone and relieved by a series of Roman Ionic pilasters, is in harmony with the Pennsylvania station, designed by the same architects. On the Seventh Avenue façade a finely dignified portico of six Ionic columns indicates the main entrance. On the lower floors are most of the public rooms, the street level having the main lobby, office, dining-room, tea-room, men's restaurant, etc. An accompanying plan shows a typical bedroom floor. Two of these floors are divided into special living and reception-rooms, with dining-room, pantry and bedrooms so arranged as to be thrown into suites of from three to ten rooms. There are three floors below the street level, and the hotel has direct connection by a wide passageway under Seventh Avenue with the Long Island Railroad Station, and there is a similar passage that leads to the Pennsylvania Station.

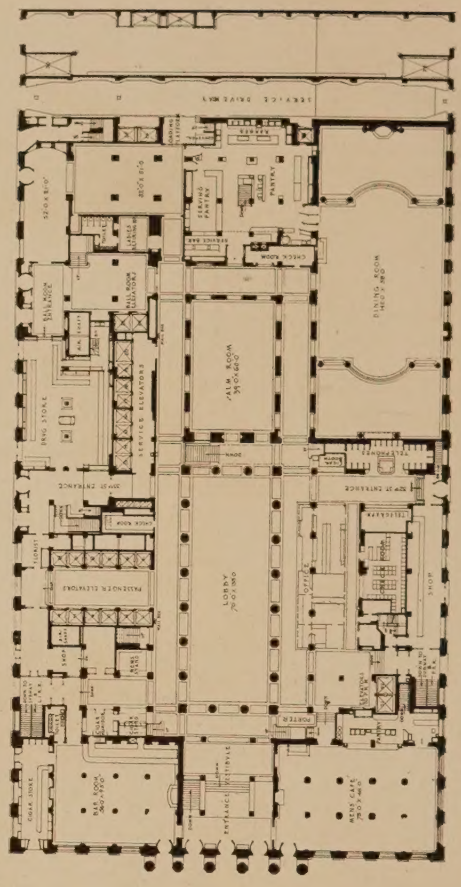
The ground floor creates an impression of abundant space with every detail carefully considered with a view to the proper harmony of color and dignity of form. The motive for the decoration of all of the important public rooms is derived from the Italian classic period. The main lobby contains an impressive colonnade of Doric columns. Above is translucent glass ceiling that diffuses a rich golden light. A mezzanine gallery here provides a lounging space.

The men's restaurant, to the right of the main entrance, is panelled with a ceiling of natural finished chestnut, and the lighting fixtures are reminiscent of Georgian and Flemish designs. At the east of the main lobby is the tea-room, with decorative motives derived from the very popular Adam period of English decoration. The walls show alternations of arches relieved by mural decorations. The main restaurant is sixty by one hundred and forty feet, with a height of over twenty feet. At each end is a raised terrace, and on the edge of these a screen of four columns adds greatly to the architectural interest. The walls of artificial limestone are relieved with trim of terra-cotta, decorated with Italian arabesques, while the handsomely decorated beamed ceiling shows the influence of the Italian and French Renaissance. The color scheme is quiet and harmonious. The writing-room, opening from the south of the mezzanine, is marked by the characteristics of the English Jacobean period, and is panelled in oak. Here are representations of famous old printers' marks modelled on the ceiling. A grand foyer with parlors on either side leads into the ballroom, with decorations showing the influence of the Italian Renaissance. The ballroom has a ceiling height of thirty feet, and a gallery of boxes extends around three sides of the rooms. The ceiling is vaulted and modelled with Italian arabesque on an ivory-toned ground. On the same floor is the banquet-room, panelled in white oak. The grill-room is a notable relief from the cell-like rooms we have become so accustomed to, with columns in graffito.

The building is impressive by its mere size. The huge wall spaces of brick, relieved by the lighter effect of Indiana limestone, give, in general, an impression of studied reserve and good taste. The impression is one of thoroughness, of organized special knowledge, of adaptation of means to a particular purpose, and this idea pervades the entire structure. The decorations, the arrangement of the spaces, the really marvellous minor details that contribute to the comfort of the guests and the orderly conduct of the business, in other words, the *service* facilities, are notable even in these days when it almost seems as if the limit of hotel construction has been reached.

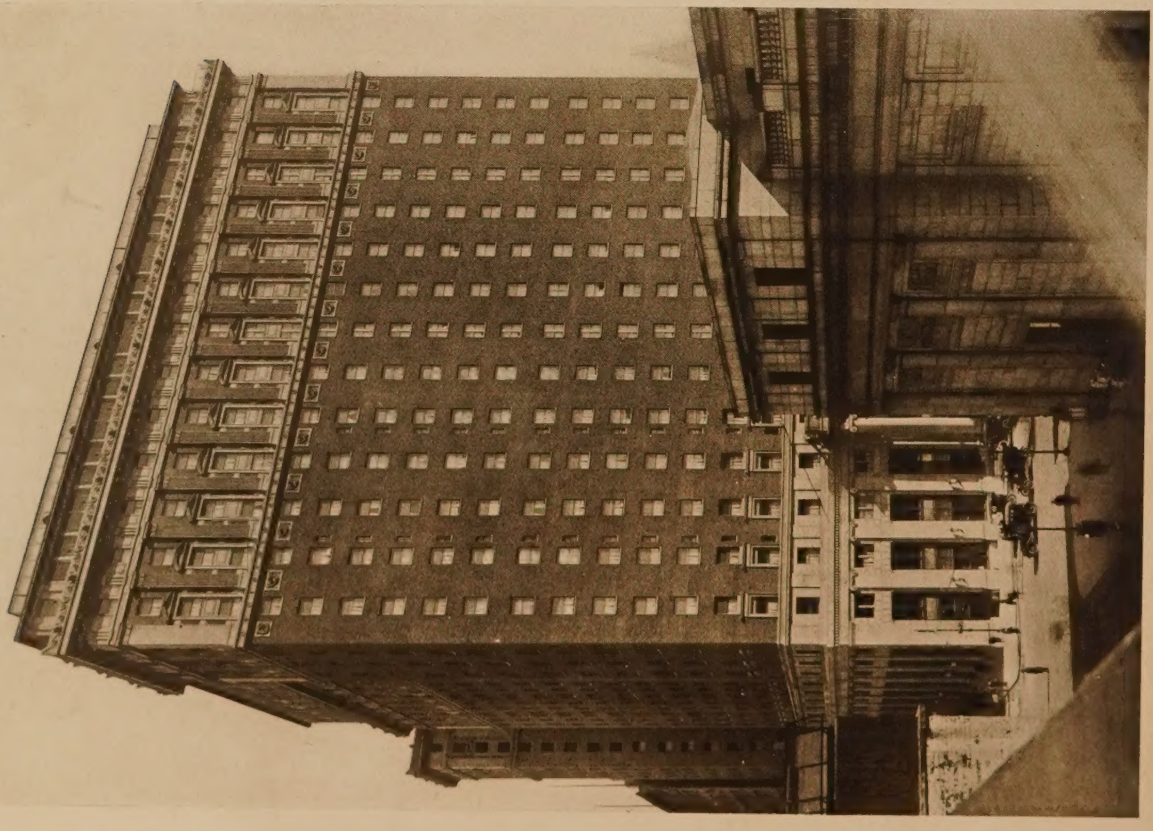


TYPICAL FLOOR PLAN.



FIRST-FLOOR PLAN.

McKim, Mead & White, Architects.



HOTEL PENNSYLVANIA, NEW YORK.

Country Home, Far Hills, New Jersey

Emilio Levy, Architect

THE yearning of the city man to become a country gentleman seems to be increasing more and more every year. This is undoubtedly due to the longing for the delights of agriculture, pigs and ploughs, plants and trees; things essential to the country gentleman. Perhaps this explains the apparent preference in the selection of inland sites to those near the sea.

The present property is situated near Bernardsville, and enjoys a picturesque view of the Jersey hills. The Dutch farmhouse style of architecture was decided upon to meet the desires of the owner for a country house of the farm type — simple and unpretentious.

The house was designed to suggest that it had existed for years in the present location. Naturally, the large width of the hand-split shingles, coarse and rough in texture, of the pre-Revolutionary period, were used, and a pleasing innovation was introduced by the doubling of the shingle course, the widths of the exposure to the weather of the shingle being 1 inch and 11 inches respectively.

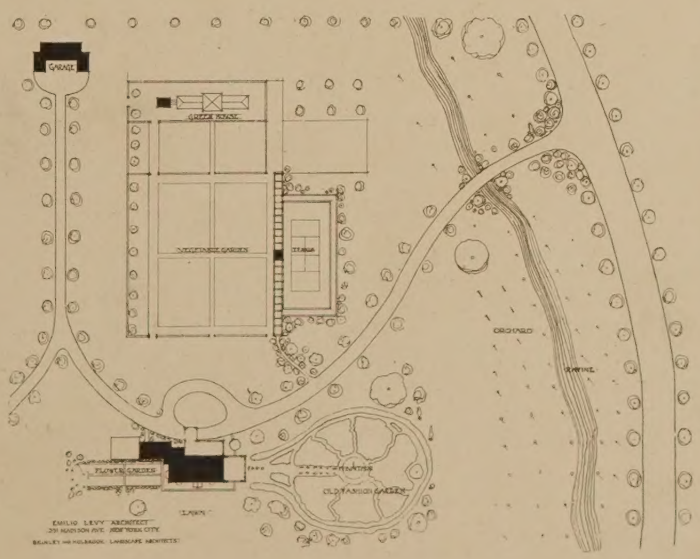
Tea-house.

The highest part of the property, which is at a convenient distance from the main road, was naturally determined upon for the position of the house, thus enabling the owner to enjoy viewing his estate, including the distant group of splendid farm buildings.

An interesting and winding road, bordered with stately trees, leads to the entrance on the north side of the house.

Visitors afoot enter the house on the opposite side, or south side.

The most desirable exposures were allotted to the living-room and main bedrooms. All of the rooms are of ample proportions; hallways have been reduced to the minimum, and it may be said there is no waste room.



All woodwork is painted white excepting living-room, which has oak-panelled walls from floor to ceiling. All floors on main part of the house are quartered sawed oak.

The kitchen and servants' quarters are located in a wing entirely separate from but within easy access to the main house.

From the front on the south side of the house one looks out upon a large and well-cared-for lawn. On this side of the house no trees have as yet been planted.

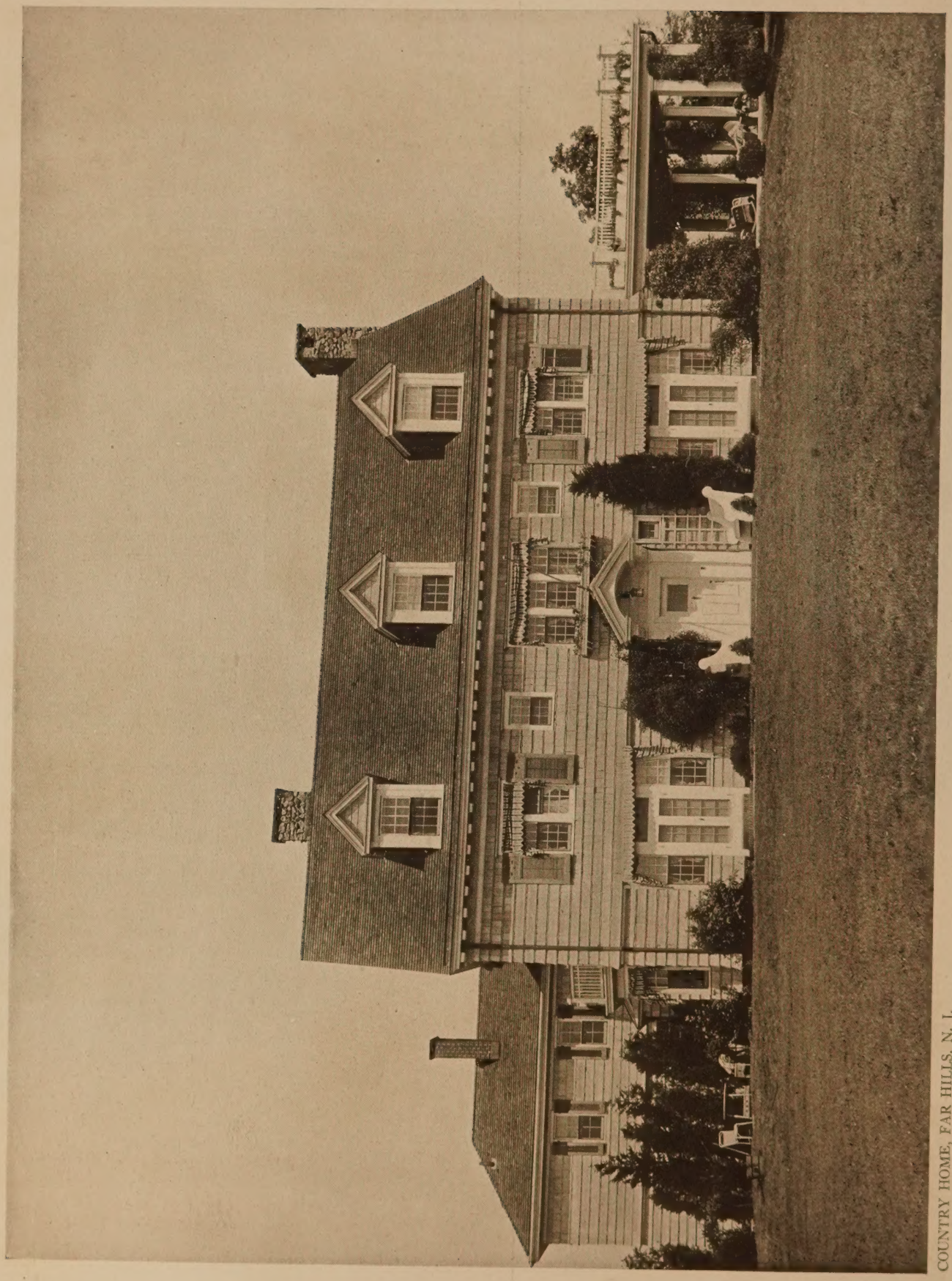
A very successful and charming old-fashioned garden affords a pleasing view from the large living-room and living-porch, which are on the east end of the house. The dining-room at the west end opens out upon the rose-garden. On the north side of the house the orchard encloses a generous vegetable-garden; to the east is the grape arbor, and an interesting greenhouse is located to the south.

The farm buildings, situated some distance from the house, are reached by a roadway flanked with sentinel-like trees.

The four-car garage follows the general style of the house. The living-quarters are located on the second floor. The "U" shape of the garage is adaptable for future additions. The wings on either side are open and afford sheltered parking for visitors' cars as well as for carriages and horses. Motors are washed in the centre court.

A small running brook skirting the edge of the woods on the west side of the property is being dammed, and a fine swimming-pool will be added to the many attractions of the property.

It is pleasant to add that the same friendly relations between the owner and his architect exist now as before his country house was built.



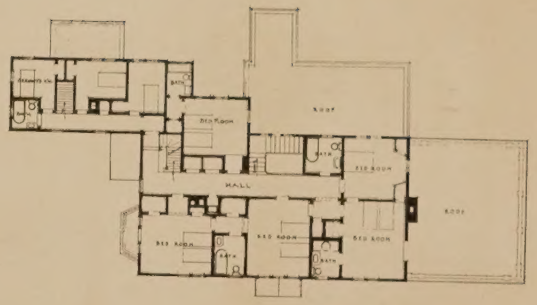
COUNTRY HOME, FAR HILLS, N. J. Emilio Levy, Architect.

GARAGE.

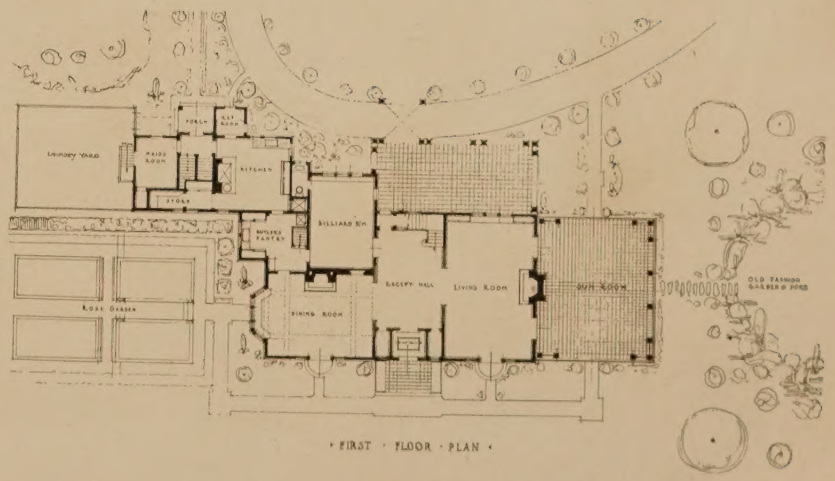
COTTAGE.

COUNTRY HOME, FAR HILLS, N. J. Emilio Levy, Architect.

MAIN ENTRANCE.



SECOND FLOOR PLAN



FIRST FLOOR PLAN

COUNTRY HOME, FAR HILLS, N. J.

Emilio Levy, Architect.

Superintendence—By a Superintendent

By Enos V. Foulk

ABOUT what happens between taking the drawings off the boards and turning the completed structure over for use—who hears? Ordinarily in an art expression the climax has its place in the scheme, but in the art of architecture the finale—the materialization of the paper architecture into a physical entity of brick and stone and mortar is little discussed, but should be. This purports to be an entering wedge.

An architect, large in heart and vision, when I took my place on his staff and was about to start on my first assignment, said: "You are not going out to be a private detective, but an interpreter and a harmonizer, and to get into the work the character you have found expressed in our drawings." And in a dozen years' experience I found this to be substantially a correct view-point, depending on conditions.

Client, mobilizer of dollars; contractor, majordomo of craftsmen and materials; architect, adviser as to taste and the *practical*. (I hope the government will not throw me into jail for tewnty years for this presumption!) The old triangle, but not of the stage; for, instead of an evil element, all three enter, or should, into a constructive combination, providing three large-minded and honorable men have been brought together.

It is axiomatic, to live men at least, that there is no finality to human thought, so even the combination of "blue prints" and specifications is not the last word. Which is but another way of saying that at the site itself may be revealed the strength or completeness of the architect's presentation of the case, but more frequently the contractor's co-operation or failure, and the client's pleasure or displeasure, as he has been able, or unable, to visualize the "blue prints," and is then able, financially and temperamentally, to adjust to imposed conditions. For also in this form of art, the stone artist cannot change either his composition or its details as readily or with as little cost as the etch artist or the paint artist may change theirs.

Superintendence necessarily varies, depending on the accessibility or remoteness of the structure from headquarters and the staff. Nearness implies the possibility of more frequent visits of the chief to the site, not only for the actual staking out of the building, which has, of course, already been studied on paper, but on through the examination of the footing conditions to the last note in decoration and sometimes furnishings as well. Remoteness brings with it the problem of selection of a resident superintendent, whose general technical knowledge, æsthetic feeling, and administrative power will make for progress, conciliate the client, and harmonize the latter and the builder in the event of friction.

A superintendent may keep headquarters advised of the growth or progress of the work intrusted to his care in three ways, viz.: language, drawings, photographs. Up to a certain point, a weekly report of work done will be found most desirable. This should be separated into the trades working on the structure, narrating just what each has done during the week reported for, and describing all the activities of the week. Such a report shows how alive the job is as a whole and reveals any particular hiatus in any trade. Again, the superintendent can keep headquarters advised weekly, or every second week, as found desirable, through the medium of a sketch plan. Heights that walls have been built can readily be shown by numbering the walls, and on the same sheet, at filing-cabinet size, the built height of walls may be enumerated. This sheet should, of course, show for record purposes that the conditions described exist at the end of a certain date. Photographs taken occasionally, say every second week, reveal general progress in a practical way. These, too, should be dated immediately, preferably on the negative—all as a matter of record. Photos of a special condition have been found a valuable ally for a reconsideration of a treatment which perhaps might be bettered in final treatment. Through these three channels, then, language, drawings, and photographs, the office may visualize progress and possess permanent records showing interest or delinquency on the part of a sub or the builder. Such records are invaluable aids in later settling controversies as to blame for failure to progress.

Nearing the completion of the work it is well to, taking both plans and specifications into consideration, report by trade just what remains to be done at the end of a definite date. This relates to both contract and the inevitable extras. A copy of this could, with good grace, be sent to the builder, not only for record but, in the spirit of co-operation, to remind him of his sins of omission as well as of commission, providing the latter have to be transmuted into correct structure. A record of this kind is invaluable in the issuance of a final certificate. Where the operation is remote from headquarters, a copy of the final report may be left with the owner of a residence or the chairman of a building committee, that it may be utilized as one of the factors in the final settlement of accounts.

My own feeling as to a superintendent's duties has impelled me to always fight, if need be, for the carrying out of a design, in the sense of finish rather than structure. In which I attest to my consciousness that the architect I have represented is essentially an artist, although he has co-operated with an engineer! There, I have used the fatal word.

I might recite without end numerous instances as to details, and how they were received at the site by "My Lady"—of either sex.

A very wonderful brick wall, running in color value from warm reds to reddish yellows. And here and there a scarlet brick. All of which meant the scarlet brick must come out. A long-distance 'phone to the chief to come a hundred miles or more to discuss the raison d'être of *one* brick. And then the charm and pathos of it all! The defense: "If I were to paint a water-color I would get the general value of the wall, and then to give it life would . . ." "But," said My Lady, "this isn't a water-color; this is a house." The scarlet brick, however, remained in the wall.

And the porch which must be redesigned because, forsooth, the hall would be so dark. And the chief's ultimatum that he would consent to the change, but would put up a sign: "This is not my work." And when all was completed "My Lady" put up at least three kinds of draperies at each window to keep the light out of the hall.

And "My Lady" says for the eleventh time, in a discussion of interior details: "But *I* am going to live in this house." And that was the last straw, and I was left alone in my loneliness, for I never saw the chief there again. His interest had been dissipated.

The Hotel Commodore, New York

Warren & Wetmore, Architects

THE notes regarding this remarkable building are aimed to point out certain distinguishing features of plan and the styles employed in the decoration, as explanatory of the illustrations shown in this number.

From the vestibule, at the Forty-second Street entrance, wide stairways on either side lead up to the lobby. The vestibule and stairways are reproductions of an Italian garden. On the street level there is a passage between the stairways giving access to the grill-room and Grand Central Station.

The lobby, the largest hotel lobby in the world, is intended to give the impression of an outdoor courtyard or patio roofed over with glass, and treated in a suitable and direct manner as a background for plants and hangings from the mezzanine. The arches of rough stucco, in soft light color, harmonize with the treatment of the skylight and the dark woodwork—the whole effect being enhanced by indirect lighting coming from concealed sources in the vases on the columns. In plan the lobby floor is so arranged that travel lines do not interfere. The social interests of the hotel—things pleasant and attractive to the ladies—have been kept to the right of the entrance at the east end. Up a few steps is a terrace known as the Palm-room, where after-dinner coffee and afternoon tea are served. Behind this terrace is the main dining-room, and from it stairs lead to the mezzanine, the hair-dressing parlor, and ladies' rooms. The walls of the main dining-room are done in American walnut without mouldings. The ceiling is vaulted and decorated in low relief. The ceiling panels and the piers supporting the vaults are painted in contrast with the dark wood. The lighting scones are utilized as registers.

To the left of the lobby entrance, and occupying the entire west end, are found the business affairs essentially identified with men. They include the offices, stock-brokers' room, check-rooms, men's writing-room, men's restaurant (an early English room), telephones, telegraph, etc.

All around the lobby is a wide comfortable mezzanine lounge reached by a broad stairway at the west end and other smaller stairways at the sides.

The Park Avenue viaduct, which crosses Forty-second Street and passes around the Grand Central Station, gives a unique ballroom entrance to the mezzanine at the west end. Automobiles land guests on the mezzanine, where a short, easy flight of stairs leads to the coat-rooms. Here wraps are removed and the guests ascend to the ball-room floor without coming in contact with regular hotel matters.

It was necessary to plan the ballroom floor to provide for various forms of entertainment (large and small gatherings), banquets, dances, conventions, conferences, and to give the particular type of service peculiar to each. Small ballrooms open into each end of the large room to be used with it or apart from it. A special banquet kitchen takes care of all requirements for dinners without interfering with service in other restaurants. In this way it is possible to serve up to 2,000 seated at one time and to provide linen, silver, and china reserved for the purpose.

The decoration of the large ballroom is not tied to any particular style or period. It was evolved from the form and arrangement of boxes used in the Mexican bull-ring, which allows for a maximum number of boxes on the gallery for sale at charity functions, and free floor space below for banquet-tables or dancing.

When the decoration was assigned to the modeller, he adopted an empire style of ornament which has worked out admirably. There has been much conflicting criticism of this room. The Old Guard Ball gave a brilliant test of its success when the rich gowns of the women and the military uniforms of the men blended with the color scheme of the decoration of black, green, and mauve.

On the roof of the ballroom a summer-garden will be planted for tea and luncheon.

The bedroom floors arranged on the **H** plan are free from the obnoxious inside court bedrooms. In fact, the Commodore's best rooms are on the courts, which are wider than any of the fronting streets. The floors are controlled by clerks at desks placed centrally opposite the elevators. There are 2,000 bedrooms all with baths.

There is a notable room back of the vestibule, the grill-room used for supper and dancing. The entrance is from a higher level, or terrace, having stone walls and columns and a tile floor. The main part of the room is down a few broad steps. Here the walls are in chestnut with alcoves and leaded windows. Large beams in the ceiling are painted in heraldic designs taken from illuminated manuscripts. This is the work of Mr. Smeraldi. The room is decorated in the style of the Swiss Tyrol.

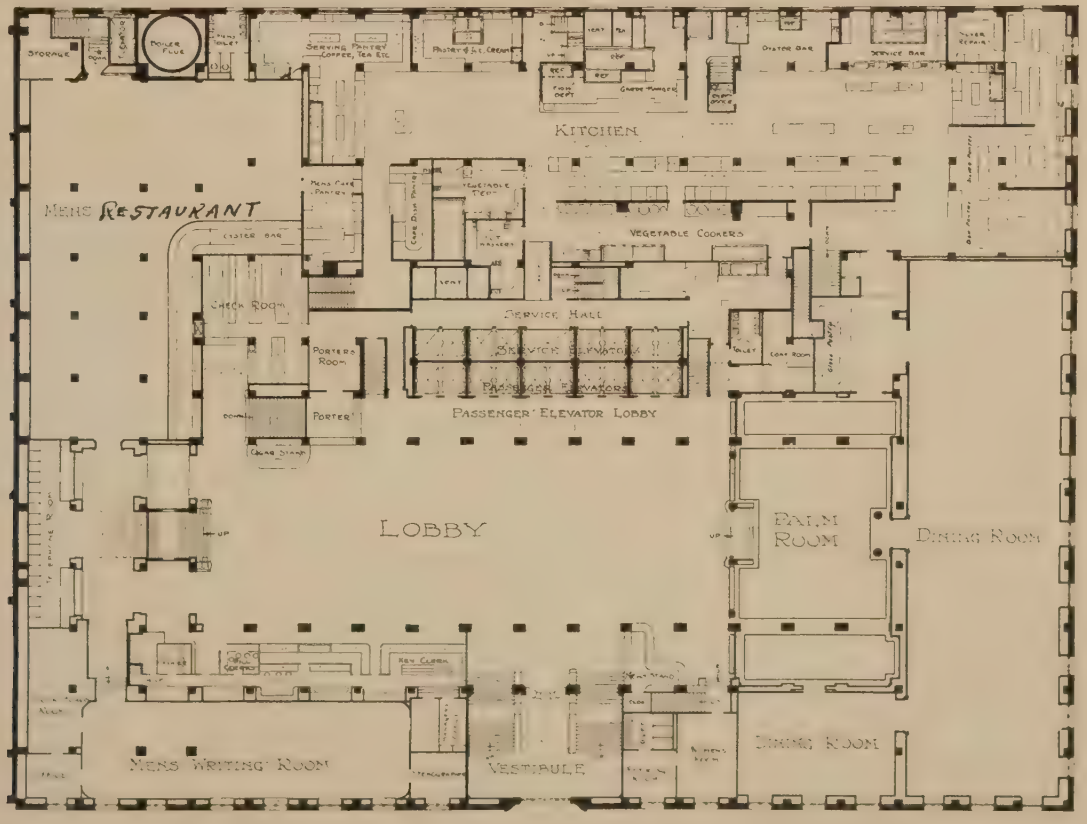
Huge quantities of material had to be used in the construction of the Commodore. For instance, 4,256,000 bricks were required, 1,653,000 terra-cotta partition blocks, 218,900 back-up tile, 1,035,000 square feet of fireproof arches, 63,850 pounds of cement, 10,000 tons of plaster, 412,000 lineal feet of plumbing pipe, 450,000 lineal feet of electric conduit, 1,500,000 lineal feet of electric wire, 245,000 lineal feet of steam-piping, and 10,000 lineal feet of refrigerating pipe.

The area of spaces in the building consists of public space, 91,600; service space, 57,900; bedroom space, 520,000; corridor space, 101,400, and stair space, 2,622 square feet.

There are thirty-three stories, five below the street level and twenty-eight from the street surface. Its steel skeleton weighs approximately 16,000 tons and is built over the great new subway systems.

The Commodore is a community of cliff-dwellers, with each cleft in the cliff a floor of palatial furnishings, of suites and apartments. The hotel is a city of 15,000 souls—many cities are smaller. In the restaurants and grills and dining-rooms, 2,000 of them are eating and chatting and laughing to music. In the ballroom, 3,000 are jazzing to a war melody. In the subway under the hotel, on Lexington Avenue, 200,000 persons ride daily.

DINING-ROOM.



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Warren & Wetmore, Architects.

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LIVING-ROOM MANTEL, GEORGE C. REW RESIDENCE, CORONADO, CAL. Elmer Grey, Architect

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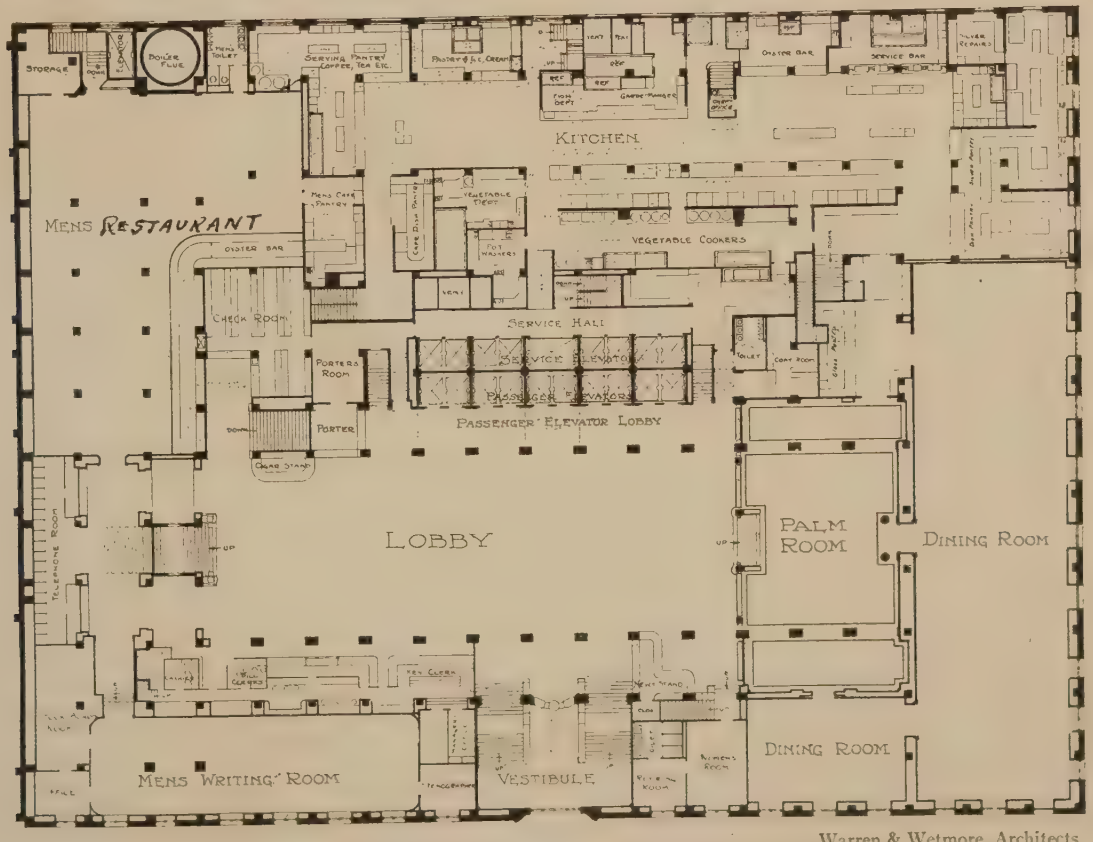

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HOTEL COMMODORE, NEW YORK.

Warren & Wetmore, Architects.

BALLROOM, HOTEL COMMODORE, NEW YORK.

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BALLROOM LOBBY.

DETAIL, LOBBY, MAIN FLOOR.

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HOTEL COMMODORE, NEW YORK.

GRILL-ROOM.

MEN'S RESTAURANT.

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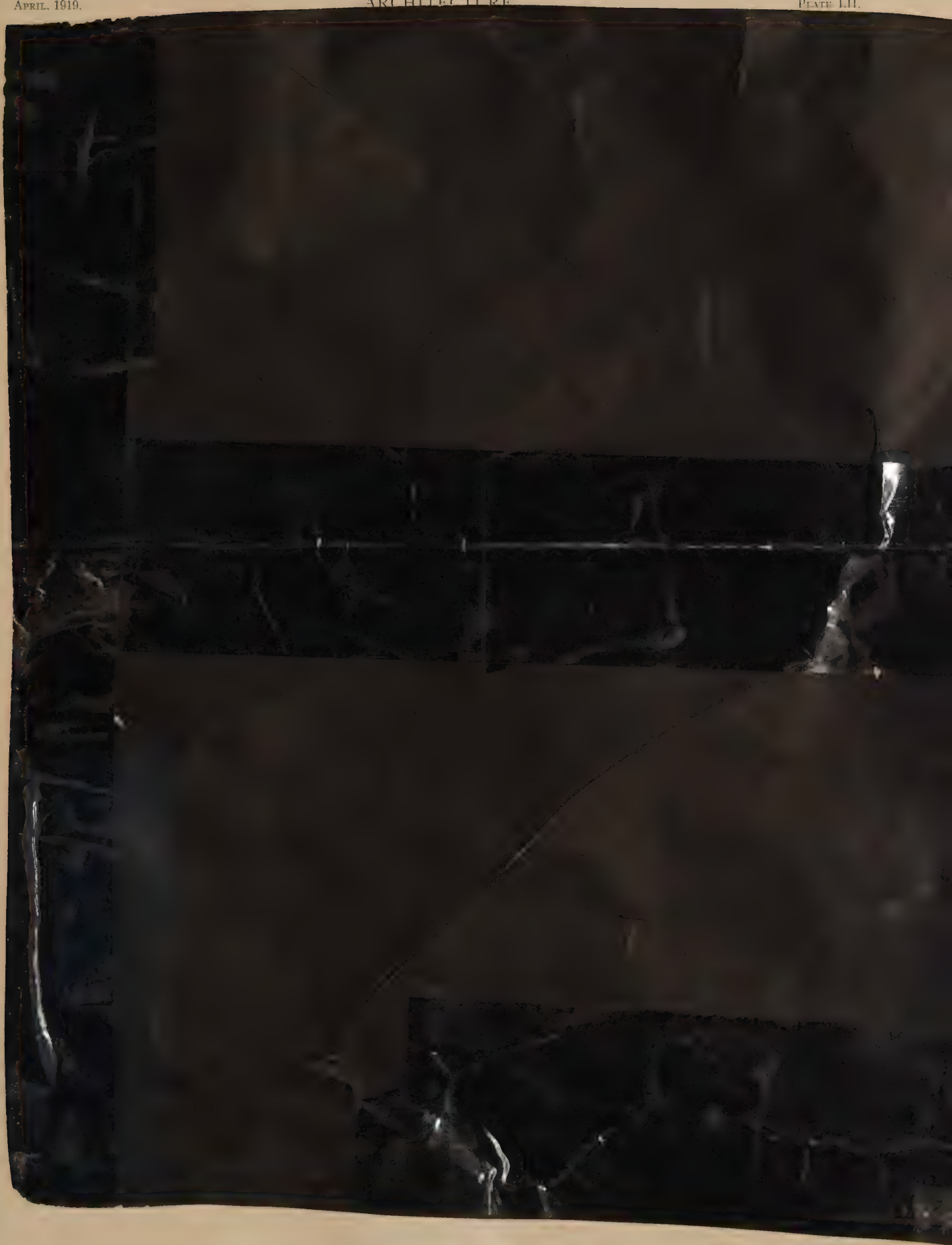

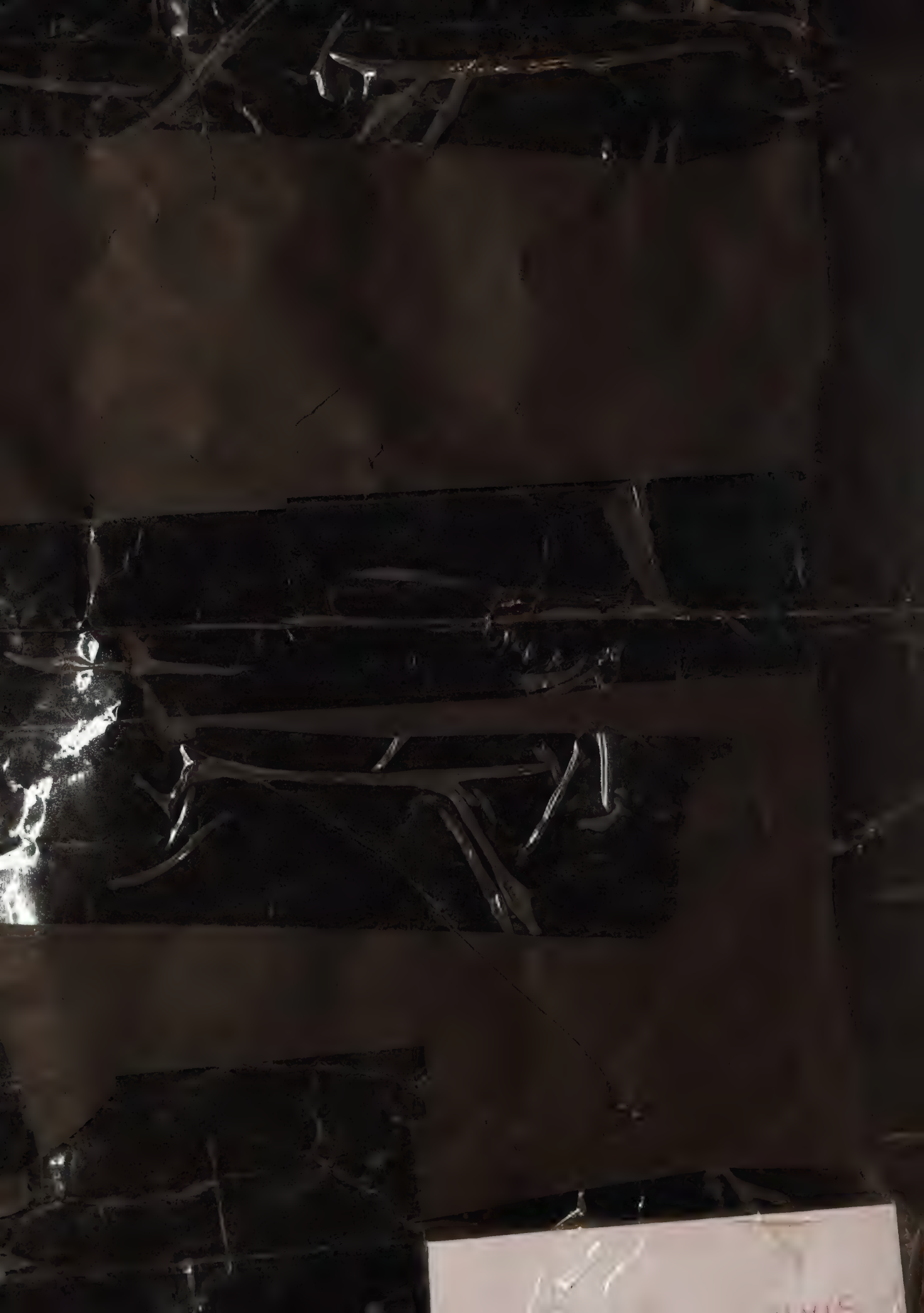

DETAIL IN LOBBY, TOWARD ENTRANCE. HOTEL PENNSYLVANIA, NEW YORK. McKim, Mead & White, Architects.

MAIN DINING-ROOM, HOTEL PENNSYLVANIA, NEW YORK.

McKim, Mead & White, Architects.

BALLROOM, HOTEL PENNSYLVANIA, NEW YORK.

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GRILL ROOM.

PALM-ROOM.

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HOTEL PENNSYLVANIA, NEW YORK.

ENTRANCE DETAIL.

GRAND FOYER TO BALLROOM.

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HOTEL PENNSYLVANIA, NEW YORK.

SOUTH PORCH, "TAMARACKS," RESIDENCE, FRANKLIN G. COLBY, ANDOVER, N. J.

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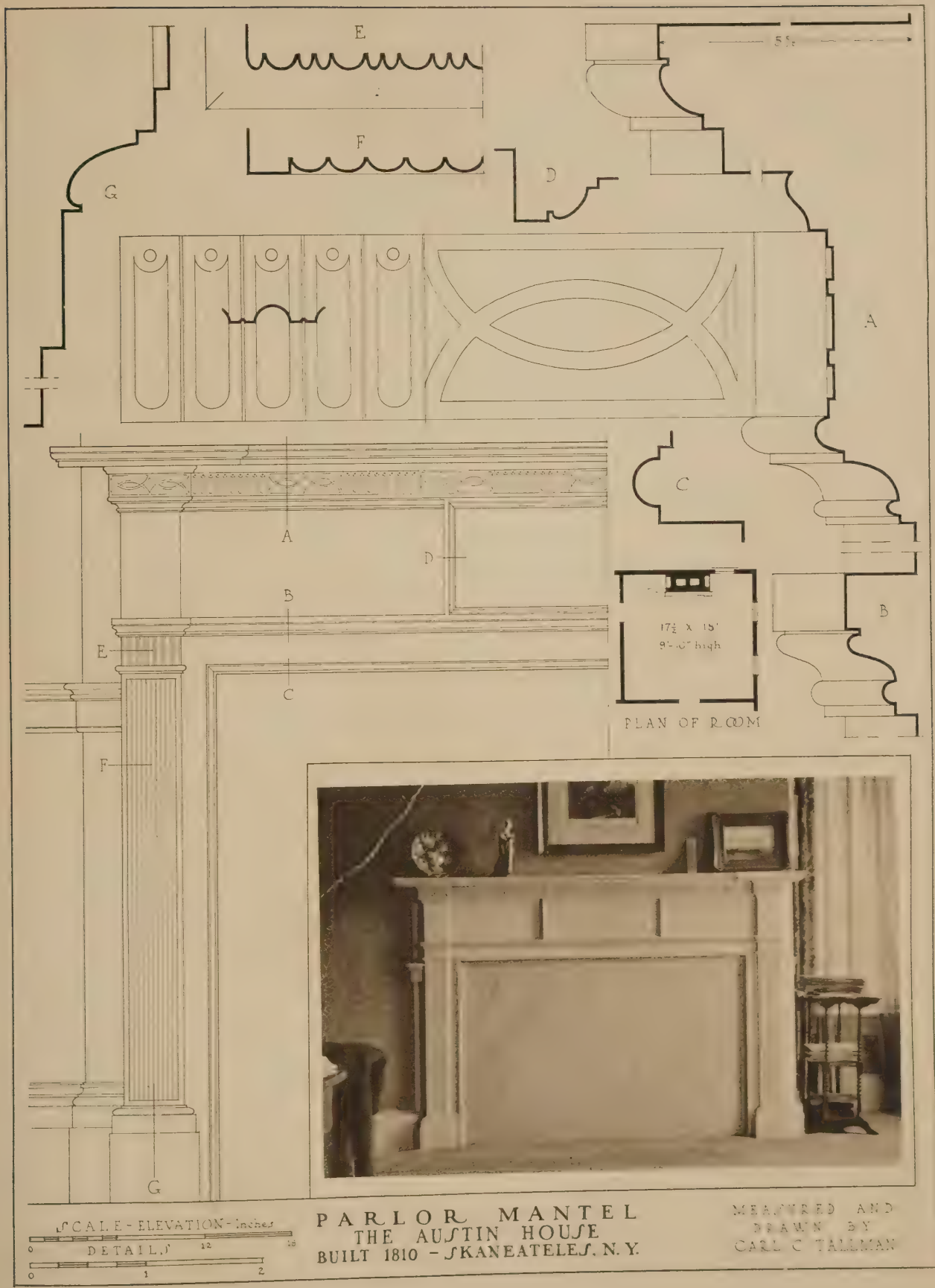
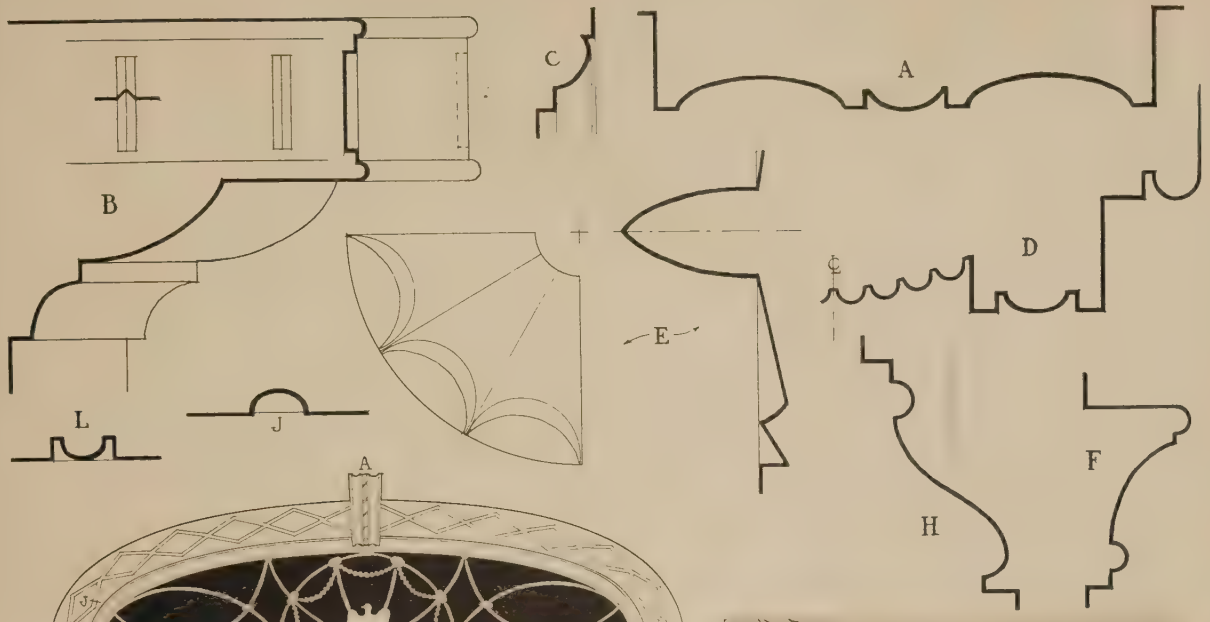
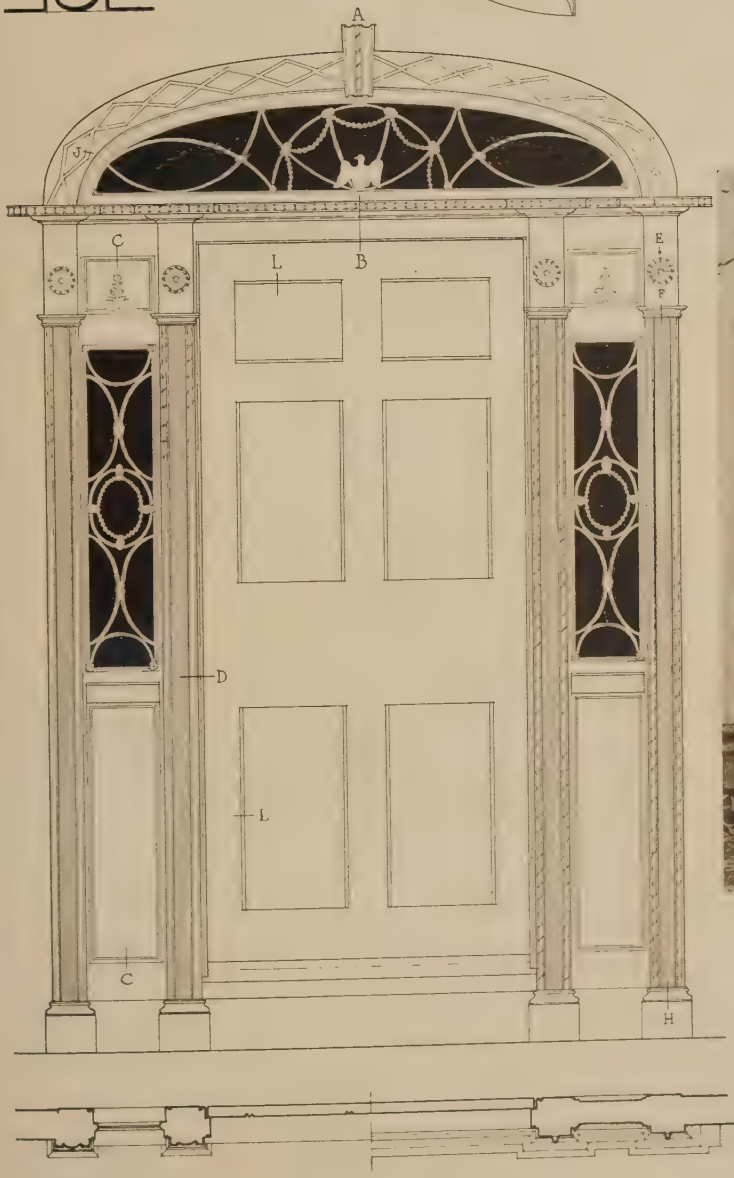


SCALE - ELEVATION - Inches
0 12 18
DETAIL, S
0 1 2

PARLOR MANTEL
THE AUSTIN HOUSE
BUILT 1810 - SKANEATELES, N. Y.

MEASURED AND DRAWN BY
CARL C TALLMAN





PLAN

DOORWAY
SOULE HOUSE
SENNETT, N.Y.

Built 1814

ELEVATION - SCALE OF FEET

DETAILS - INCHES

MEASURED AND DRAWN BY

Carl C. Tallman

1918

Southern California's New Architecture—II

By Elmer Grey

THE Henry Dater house, near Santa Barbara, is another house of the Spanish type, but a very different one. Its difference serves to show what a wide variety of effect and expression may be obtained in the use of the same style. It is used as an argument against the wide introduction of Spanish in California, and in favor of a more general use of other styles, that the result of too much of one style would be monotonous. The difference between the Eltinge and Dater homes, both built in somewhat similar situations on the side of a hill, goes far toward dispelling such a theory. As one approaches the Dater house one also enters a forecourt, but instead of the main façade being irregular in treatment, as in the Eltinge house, it is quite formal. There is a central one-story portion flanked symmetrically by two two-story wings. Behind this central portion is an interior patio in which are planted palms and other trees, the tops of some of which may be seen peering over its roof. The treatment of the entrance doorway is effective because of its simplicity and good scale. It is severely plain, stone pilasters at the sides of the doors being connected above by a simple cornice treatment, and the whole being accented by a coat of arms cut out of the stone over the centre. The doors themselves are so large in scale as to seem almost as though intended for the entry of some giant species rather than for men, but their large size for some reason does not here seem out of proportion. They are of dark oak, severely plain, but relieved and enriched by a considerable number of beautifully chased bolt heads and a huge silver knocker. Upon entering, one comes into a narrow hallway, leading both to the right and to the left, and not until one passes around this portion of the hall does one come into view of the patio. When this is seen, however, its novel and beautiful effect compensates for the somewhat round-about way adopted to reach it. At its farther end are three arches composing an arcade, the back walls of which are panels of beautifully designed and richly colored tile, the centre one constituting a wall fountain. Not only are the individual tiles in these panels beautiful, but they have been designed as parts of larger patterns covering the whole panels, just as the patterns of many Oriental rugs are so designed, and the effect brings very much to mind the idea of beautiful Oriental rugs transfused into the more solid material tile. In each of the four corners of the patio is a tree, around the bases of which are octagonal curbings decorated with more of the same tile. In the centre is a large rectangular pool, also edged with tile, and in the pool are kept a large school of goldfish, which have a way of darting from one end to the other, lending an additional note of color and interest to the scene.

Henry Dater house at Santa Barbara. Bertram G. Goodhue, Architect.

Fountain, George C. Rew residence, Coronado. Elmer Grey, Architect.

The plaster-work, both interior and exterior, has been done without the use of a darby, the floors (those which are not tiled) are made of heavy plank, the stairs are of brick with iron hand-rail, and the beamed ceilings of some of the principal rooms have been hand-adzed and finished to simulate age. Much of the furniture consists of antiques, many old paintings gathered in Europe, Mexico, and elsewhere adorn the walls, the effect of all these things being to impart a decided flavor of the past, a sort of historical atmosphere which accentuates the romantic effect conveyed by the court. One may or may not agree with this idea of planning and furnishing a home, but it certainly has an inescapable charm. Seated in this beautiful court, surrounded by the lovely tile-work and fountain and the greenery of the trees, one is forced to feel this charm whether one will or no. In its presence California becomes not alone a very beautiful

part of our country, but one also redolent of romance, history, and tradition.

About eight miles north of Los Angeles, and the same distance west of Pasadena, lies a beautiful country of foothills and valleys called La Canada. It is still almost wild in general aspect but is an ideal district for country homesites and has recently been opened up for that purpose. How often, when man builds amidst picturesque surroundings, and particularly when he selects conspicuous hilltops for sites, does the newness of his product seriously mar what is otherwise a beautiful scene! It seems particularly important when building in conspicuous positions and in a virgin landscape to have a building just right in design, and to have it tied to its surroundings with just the right kind of accessories. In La Canada, on the top of a very conspicuous hill, there is one house, the home of Mr. Malcolm McNaughton, in which just these conditions have been fulfilled; it is so appropriate in character and has been so perfectly tied to its surroundings as to make one feel glad that it was built there. The site would have seemed impossible for the purpose to many owners, so small was the level space available on the hilltop and so precipitous its sides. It has been made possible, however, and exceptionally beautiful by the simple design of the building, by the fortunate color of its roof tile and side walls, which blend with those of the surrounding hills, and by the many terraces of irregular shape built around it; terraces buttressed with rough stone retaining walls which follow the contours of the site and seem already as though they belong there although but a few months old.

The Malcolm McNaughton residence, La Canada. Reginald Johnson, Architect.

The roof is of a kind common to many of the successful houses of this style in California and calls for particular mention, so beautiful in color and texture is it. It is made to simulate the soft dull grayish-red roofs of Europe, or (not to go so far away) some of the original roofing tile on the old California missions. The separate tile are dull red, dull pink, and even dull blue in color, but they are so judiciously selected and so carefully blended that the result is a wonderful color harmony which must be seen to be appreciated. In texture they are also very different from most American laid tile roofs in that the tile are of a relatively flatter shape than usual and are laid irregularly as to courses and alignment rather than with mathematical precision. This method not only gives a much more interesting texture but, along with their color, gives them the same appearance that very old tile roofs have. As one writer has said regarding them: "The illusion of age is perfect."

The house is approached from a country road at a higher level, the lower side of the property being too precipitous for the purpose. In entering the grounds one passes first the garage, a building of similar style, then the road winds along the edge of a declivity for several hundred feet, and finally it ends in an irregularly shaped forecourt with precipitous sides, walled in by some of the above-mentioned terraces. From this forecourt, and also from the porches on the opposite side of the house, wonderful views of the surrounding country of rolling hills, cultivated valleys, and superb distances are obtained. It is from a lower road in one of these valleys that the house is seen to the best advantage. From there the stone terraces best exhibit their friendly purpose of tying the house to its surroundings. They pile up, one above another, as if to support it from firmer foundations lower down. The house itself, with austere lines, dull yellow walls, and red-tile roof, seems just the right note to surmount them. Behind all the mountains loom to furnish the proper background. Maxfield Parrish might have drawn such a scene for some of his fanciful groupings, Sir Walter Scott could have used it for fictional settings; it brings to mind a castle in Spain, though it is but the intelligent utilization of a hilltop for a home in California.

The Spanish vogue in California has been criticised by some on the score that it is not sufficiently homelike when used for residence purposes. It is said that when truest to type the window openings are too small to furnish the abundance of light and air which most Americans desire in their homes; and the colonial style is cited as one in which this fault is not to be found. It is true that numberless colonial houses do express in a dignified and charming manner American home life at its best, but it is also true that there are many situations in California (such as the one just described, for instance) where a colonial house would look totally out of place, would in fact be an intrusion upon a landscape utterly foreign to it. It would seem therefore that such faults as the Spanish style in California may have should be overcome; that by additional study on the part of architects it should be made to better conform to American home requirements. I think this has already been accomplished in a considerable number of instances, and one of these is the recently completed residence of Mr. George C. Rew at Coronado. On the south side of the Coronado peninsula, near to where Father Sierra and his companions must have first landed (indeed it may be the identical spot), there runs a broad boulevard skirting the Pacific Ocean. Huge rocks have been hauled and deposited along its ocean side to protect it from inroads of the sea; on its opposite side are the green lawns and beautiful tropical-looking street trees. When the waves break over the rocks and throw their spray high in the air, as they frequently do, the effect in contrast with the green trees and lawns opposite is inspiring. The Rew residence occupies a large piece of property

MAIN FRONT.

SIDE.

THE GEORGE C. REW RESIDENCE, CORONADO.

Elmer Grey, Architect.

facing this boulevard and the ocean, a lot which had long been used for residence purposes and has many years of arboreal and other growth upon it. It commands an unusually comprehensive marine view in an arc including Point Loma, the Coronado Islands, a part of the Mexican coast-line, and Table Mountain in Mexico. Yet along with this close proximity of the sea, so mild is the climate of Coronado that, in the garden back of the house (walled in with a high Spanish-looking tile-capped wall) are grown avocados, pomegranates, figs, oranges, mangoes, and many other kinds of warm-country fruits. Roses of many varieties bloom there profusely. Poinsettias do exceptionally well. A long row of acacias throws welcome shade. A grove of tall palms adds a touch of dignity. What more could be desired for a home environment than such growth combined with such marine views? And the Rew house has been planned to take the utmost advantage of both.

Its rooms are arranged around three sides of a patio, the principal rooms, however, also having an outlook toward the ocean. The patio is paved with tile, but around its sides and centre are beds of ferns, cycads, begonias, etc., and in one corner is a tall cypress-tree. Porches communicating with the principal rooms face it on two sides, while its third side opens upon the garden. In the second story is a covered balcony of semi-Moorish design looking down upon it, which balcony communicates with one of the principal bedrooms facing the ocean, thus giving that room a sheltered outlook upon the patio as well as the ocean exposure. The owner's bedroom, the guest-room, and an office are in a one-story wing adjoining the patio. The main hall, approached from a side street, is semicircular in shape with a winding stairway, and directly opposite as one enters is a pair of very beautiful wrought-iron grille doors, a copy of an old pair in Pamplona, Spain. They serve the purpose, in addition to their being highly decorative objects in themselves, of providing greater privacy for the living-room beyond, without entirely intercepting the view of it from the hall. The living-room is two stories high, vaulted overhead, and at one end is a huge fireplace of Batchelder tile, with figures and scenes depicting the early Spanish life of California modelled upon its robust columns and strong-looking frieze. A gallery in the second story looks down upon the living-room, the openings into it being guarded by wrought-iron grilles. In the second story is also a sun-room with arcades facing the ocean in three directions, the arcades being fitted with steel sash which open and virtually make of the room a second-story porch. The ceiling beams of the hall and also those of an alcove of the living-room are hand-adzed and finished to simulate age, and the interior plaster and its color are rather old looking, but in other respects the interior does not imitate old methods as far as do some of the former houses described. The library is finished in walnut, with modern bookcases running to the ceiling and another large mantel. The dining-room is panelled in oak, and the floors are the regulation type of narrow polished hardwood. The effort has apparently been to combine beauty of a Spanish type and some of its charming old atmosphere with a reasonable degree of modern refinement.

On the outside of the house the texture of the plaster is a notably successful feature. Beach pebbles, sifted to a small and uniform size, were thrown upon the walls when the plaster was soft, each one thus producing its own little bullet-hole, so to speak. In conformity with the proximity of the house to the Mexican border its exterior treatment shows marked Mexican feeling, this consisting of broad plain wall surfaces contrasted with rich ornamentation at some of the principal door and window openings. The ornament has been carefully studied for the effect upon it of light and shade, and the result is correspondingly good, such Mexican enrichment when well done having often been likened unto lace-work. The roof is covered with the same tile of remarkable color and texture described in connection with the McNaughton house. These characteristics taken all together, the interesting plaster texture occasioned by the dashed beach pebbles, the richly ornamented entrances, and the varied and colorful roof surfaces combine in forming a striking and effective exterior. Whether a house planned as this one is, with its principal rooms facing the ocean and its opposite side surrounding a patio facing a garden, is any less homelike than one of a different type could have been in such a situation may be a matter of opinion; but certainly, considering the historical associations which cling to Coronado and its vicinity, the eventful landings which have taken place upon its shores, and the venturesome spirits who have made their homes there, none could be more fitting.

There Is Little Danger of Loss in Judicious Building Investment —High Rents Will Make Up for Increased Cost

THE cost of construction is not high to-day. It is low compared with food, clothing, and commodities in general. It is high only in comparison with its own pre-war level. Commodity prices will undoubtedly recede because food and clothing and many other things were affected by special war conditions, for example, scarcity of transportation, which prevented shipments from distant countries to the Allies. But they cannot fall to the pre-war level.

But, although some readjustments in the wages of individual trades and in the prices of individual classes of building materials may take place, the cost of construction will not come down to such an extent as to endanger a judicious investment made to-day in the erection of a new building. Where the rents offered will show a fair net return on the cost to-day of a new building after deducting a reasonable sinking-fund allowance, no one should hesitate to build or to lend money for building.

Rents are determined by supply and demand. In the case of housing, during the early part of the war, the demand was curtailed by the rapid advance in commodity prices, which impelled many tenants to crowd into or get along with less space than their normal standard of living required, and by the drafting of the young men of military age. With a year, however, these influences had spent their force. By the end of 1918, according to the replies obtained from a questionnaire sent to real-estate boards in ninety-one cities, only four of these cities had a housing demand that was below normal, while in fifty-two cities rents had advanced 10 per cent or more, in some instances, 40 per cent to 50 per cent. This rise in rents took place at a time when the population at home was as economical of house-room as possible and while several millions of soldiers were absent in the service.

HALL, SHOWING WROUGHT-IRON GRILLE.

MANTEL IN DINING-ROOM.

Elmer Grey, Architect.

GEORGE C. REW RESIDENCE, CORONADO, CAL.

Scientific Management of the Drafting-Room

By Henri C. Heps

General Manager in the office of Mann & MacNeille, Architects and Construction Engineers

HOW TO DETERMINE THE VALUE OF A DRAFTSMAN

THERE are many subjects of interest in connection with the scientific management of an architectural office, but perhaps those which strike the most popular note have to do with the reduction of overhead and the increase of office efficiency.

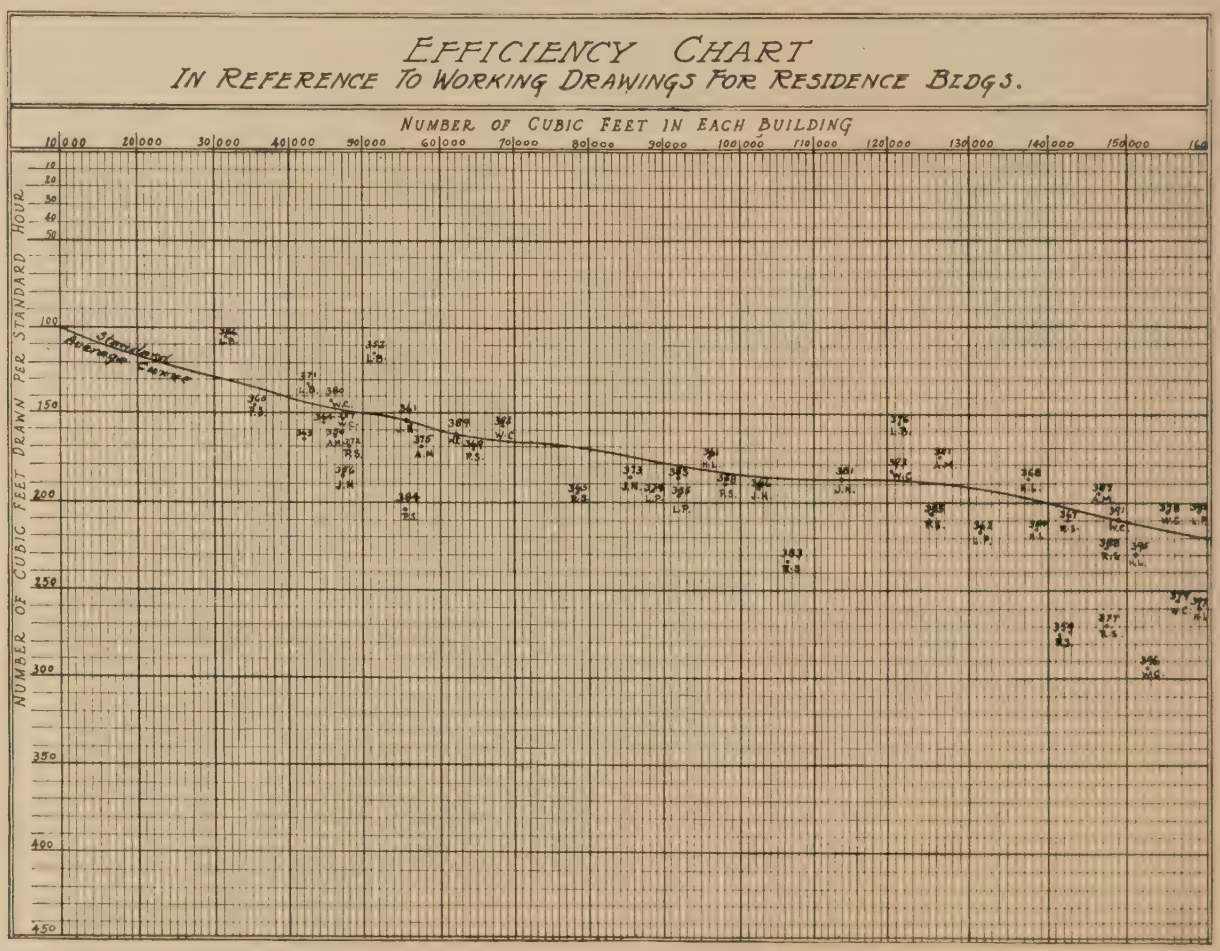
In analyzing cost in many architectural offices it is found that owing to lack of careful determination of the value of individual draftsmen, a low average of efficiency is maintained, with a resultant contribution to the office overhead, which is unnecessary and unbusinesslike.

How much is this or that man worth to me in dollars and cents? Here is a question that every architect would like to answer, but very few are successful in determining a method even of approximation.

It is for the purpose of demonstrating to the profession a scientific method by which the value of a draftsman can be determined that this article is written, in order that the efficient man might not be underpaid and the inefficient overpaid, which is the case in so many architects' offices.

The means of determining the value of the men is the accompanying chart, but before touching upon the chart itself a few important explanatory notes are necessary.

In our office we draw a very distinct line between designs or sketches and working drawings, and it is, in my opinion, fatal to try to measure a designer's ability by the number of hours it would take him to produce a sketch. That is work that requires creative imagination, and our designers are not judged by the amount of time they put into the solution of an architectural problem, but solely by the results which they obtain, irrespective of cost, so that this part of the work does not come under this category. Only after sketches have been approved, and the work is turned over to general draftsmen to be developed into working drawings, can we begin to apply scientific methods in accomplishing the different ends.



It is found advisable to prepare a separate chart for each type of building, such as residences, schools, office buildings, factories, and for the purpose of this article we will consider the efficiency of a draftsman in preparing one-

quarter-inch working drawings for residence buildings, as determined by the accompanying chart.

In working out this chart the cost has been taken of draftsmen's salaries for preparing working drawings of twenty-five typical residence buildings costing $25,000 and under. It was found that this cost averages 7.8 per cent of the total income on each job. In dollars and cents it means that for a residence on which the architect's commission is $1,200, the complete working drawings were prepared at a cost of $93.60 in draftsman's time, and so on, according to the size and cost of the building. This is, no doubt, a great deal less than the records will show in some offices, but in preparing a chart such as this, the architect should use his own average, and improve on it as he goes on.*

After having determined what the average is, we then take the size of these buildings in cubic feet. The residence mentioned above would represent approximately 35,000 cubic feet. Next we must determine the value of a "Standard Hour," which for purposes of this article has been placed at thirty cents. This "Standard Hour" is the gauge we use to measure by. Now that we have the amounts to be spent on working drawings, the size of the building in cubic feet, and the value of a "Standard Hour" at thirty cents, we are ready to prepare our chart. The vertical lines on the chart represent 1,000 cubic feet each in the size of the buildings, and the horizontal lines 10 cubic feet for each "Standard Hour," or each thirty cents represented in the cost of preparing the working drawings of each building. The curved line on the chart, known as the standard average curve, indicates the number of cubic feet that the draftsman should be able to draw per "Standard Hour," and this is determined by dividing the amount allowed for the working drawings of a certain size building by a "Standard Hour," or thirty cents, and by dividing the number of "Standard Hours" thus obtained, into the total number of cubic feet represented in the building, which will then give you a certain number of cubic feet per "Standard Hour." This will vary for each building as it is reduced or increased in size, and the standard average curve is plotted accordingly.

In order to assist in plotting the standard average curve on the chart, it is suggested that a table be prepared, giving in the first column the cost of the building, in the second column the amount of the architectural commission, in the third column the amount allowed in draftsman's time for the preparation of the working drawings, and in the fourth column the size of the building in cubic feet.

The following table has been worked out as described above for residence buildings ranging in costs between $10,000 and $75,000. Our past records show that when the cost of a residence runs over $40,000, the net cost of the working drawings is reduced to 7 per cent of the total commission. This is shown in the table referred to above, and is, therefore, automatically recorded on the chart by the standard average curve.

COST OF BLDG.	AMOUNT OF ARCHIT. COM.	ALLOWED FOR W. D. 7.8% OF COM.	SIZE OF BLDG. IN CUBIC FEET
$10,000.00	$1,000.00	$78.00	30,000
12,000.00	1,120.00	87.00	38,000
14,000.00	1,240.00	96.72	45,000
15,000.00	1,300.00	101.40	50,000
16,000.00	1,360.00	106.08	53,000
18,000.00	1,480.00	115.44	60,000
20,000.00	1,600.00	124.80	67,000
22,000.00	1,720.00	134.16	73,000
25,000.00	1,900.00	148.20	85,000
30,000.00	3,200.00	165.60	100,000
35,000.00	2,500.00	180.00	110,000
40,000.00	2,800.00	200.00	115,000
45,000.00	3,100.00	217.00	140,000
50,000.00	3,400.00	238.00	158,000
55,000.00	3,700.00	259.00	165,000
60,000.00	4,000.00	280.00	170,000
65,000.00	4,300.00	301.00	175,000
70,000.00	4,600.00	322.00	180,000
76,000.00	5,000.00	350.00	190,000

It might be of interest to know that for buildings of this type the cost of preparing working drawings becomes smaller while the cost of preparing details becomes larger, and this for obvious reasons, which will be readily understood.

After the standard average curve has been carefully plotted, the chart is ready for use. All that remains to be done is to plot each new set of working drawings on this chart, figuring out in each case how many cubic feet were drawn for each "Standard Hour" represented in the cost of the working drawings. If the mark comes above the standard average curve the draftsman does not come up to the average, and his work is not being done efficiently. In which case, it behooves the management to determine whether the fault lies with the draftsman himself or with the conditions under which he works. If the mark comes on the line the draftsman is doing what is expected of him, and if it comes below the line, the draftsman, after a few similar performances, should get a raise in salary.

This chart, in addition to furnishing the management with the information so eagerly sought after, provides the drafting force with a wonderful incentive to do good work, and to bring out the best that is in them, since they know that the management is constantly in possession of absolute records attesting to their accomplishments in the office, and that their advancement depends entirely upon their own merit.

There are, of course, other factors which have considerable bearing on the organization and personnel of the drafting force. Some of the important qualities which should be given due consideration with draftsmen, are summed up in the following: VERSATILITY, ACCURATENESS, INITIATIVE, CO-OPERATIVE SPIRIT, ASSUMING RESPONSIBILITY—any draftsman who lacks any or all of these qualities finds himself seriously handicapped in performing his work, and it is next to impossible for such a man to develop himself through the various stages of the architectural profession and become an important factor in an architectural organization.

The management of our organization takes considerable interest in, and keeps record as far as possible of, the career of a number of draftsmen, designers, and engineers, and the following facts will clearly illustrate the possibilities which lie open to most men if they will only grasp the opportunity.

One of our large architectural offices, up to a few years ago, had a drafting force which numbered among its personnel the good, bad, and indifferent.

As to the "good," they are now all successful and are taking care of themselves. As to the "bad," these were, for the most part, hopeless, and should have been employed in a different vocation, and it is gratifying to note that some of them have at last realized this themselves, and are at present more successfully employed in a different field. The "indifferent" are truly to be pitied, for they are still in the same class, and the discouraging feature is the fact that men of this type are getting more numerous every day, while they have it within them to make good and become a real asset to any organization if they will only put their minds to it. This type usually arrives in the office promptly

*See July, 1917, issue of ARCHITECTURE for an article by Mr. Heps on the scientific preparation of working drawings.

at nine in the morning, leaves at five o'clock in the afternoon, keeps pretty well occupied during the day, and in general does just about what they are told to do, and no more. These men have no interest in the work they are performing; they do not ask nor care about the "why" and "wherefore" of things, they don't live with their work but apart from it, they can never give a constructive criticism, never take the initiative, nor do they assume responsibility in any degree, however small. The result is obvious. Men who belong to this class drift from one office to the other, and seek an increase in salary every time they change their position. Their stay in any office is usually of short duration, since it does not take the management long to find out that their capacity is very limited, and presently they become dissatisfied with everything in general, and architecture in particular. This type of man has a great disintegrating effect on the morale of any drafting force. He is forever comparing his salary and his chance for advancement with the more successful men around him, and is loud in expressing his dissatisfaction with the unfairness of the management, without realizing that he himself clogs the wheels of his own progress.

The chart referred to in this article is very unpopular with the men that belong to the "indifferent" class, since they are unable to have their work follow the standard average curve.

As further explanation of the chart itself, your attention is called to the number over the dot, which represents the job number, and to the letters under the dot, which represent the initials of the draftsman in charge of the working drawings. A condition may easily exist where more than one man is employed in the preparation of a set of working drawings. In that case the man in charge of the working drawings is responsible for the work of the men that assist him in developing them, and his initials are those which are placed under the dot designating on the chart the degree of efficiency with which the work entrusted to his care has been performed.

It has been an interesting experience to see what a different spirit can be instilled in the drafting force of an architect's office where all men are judged and valued according to their own steel, instead of according to their looks, their clever talk, or their pedigree.

The work which emanates from an office managed along scientific lines not only proves more satisfactory in the general course of transacting business, but is more economical as well, the satisfaction of which is reflected in the faces of each member of the organization, from the senior partner of the firm down to the office boy.

Farm Improvements and Rural Construction Work Will Aid in Readjustment

FARM products have a greater purchasing power today than ever before in the country's history. This may explain why rural districts of the country rapidly are getting under way with building and construction work. It is obvious, since building and construction work have such an important bearing at this time on stimulating general business, the farmer may serve both his own and the national interest by at once making needed improvements on his property. He can further the general welfare while assuring himself of immediate and permanent benefits, in urging road construction and improvements in his locality.

It is generally understood no material reduction may be expected in building and construction costs in the near future. To be sure, prices on some materials may be slightly reduced in the readjustment, but the best authorities on the subject assert no pronounced reductions are probable. This is explained by money conditions, the foreign demand, and the marked curtailment of production of building materials during the war. Professor Fisher, of Yale University, has issued a statement in which he says the country is on a new price level from which there will be no general recession.

Many farmers have been unable to get materials and labor for barns, silos, houses, and other improvements during the war. The farmer who at once avails of the labor supply and gets his improvement work under way, in the long run, may prove to be the prudent business man, for there is reason to believe that farmers who delay in the hope of materially reduced construction costs will have been deprived of the use of these improvements, and in the end be forced to pay approximately the building prices now prevailing.

In several States, among them Missouri, Oregon, and Colorado, silo-building campaigns are being carried on by the agriculture colleges. In Wisconsin there is a milk-house campaign being vigorously prosecuted in the dairy districts, while in Illinois farmers are being urged to build feeding floors. Other campaigns for farm improvements are on in Nebraska, Kansas, Minnesota, South Dakota, Kentucky, Ohio, and in localities in Texas and Iowa. While many of these are being conducted by building interests, the Division of Public Works and Construction Development of the U. S. Department of Labor is interested in seeing them successfully carried out because the division realizes such activities on the farms are bound to have a beneficial effect on general business conditions.

The farmers of the country should have an unusual interest in road-building at this time. If farming is to continue on its present profitable level there must be no business stagnation in the country, and the vast road-building projects in the various States are destined to exert a profound influence in keeping "business as usual," or "better than usual."

No Material Reductions Expected in Lumber Prices

HORACE F. TAYLOR, president of the National Wholesale Lumber Dealers Association, writing from Buffalo, N. Y., to the Division of Public Works and Construction Development of the U. S. Department of Labor, does not hesitate to say material reductions in lumber prices will develop very slowly, if at all. Mr. Taylor says:

"The very clear majority of opinion we derive from representatives of the industry in all parts of the country is, in effect, that there will be no further reduction in the cost of lumber for a long period, and that there is no safe ground, therefore, for postponing building in the hope of a price reduction in this material. We look upon the present rather quiet conditions as temporary only and due to industrial readjustment, soon to give place to very sound activity. The cost of making lumber offers no chance of reduction, both on account of materials and supplies and the cost of labor, which it seems not only necessary but desirable to maintain at as nearly an adequate rate as possible in view of the present cost of living."

The Building of "The Tamaracks"

By Franklin G. Colby

IT is every one's dream to have or build a beautiful home for themselves. That the earlier dreams of such a home are often unrecognizable in later dreams when people have travelled abroad and seen more of the world was so in our case, changing a castellated exterior into a northern Italian exterior as being more suitable and pleasing to the general American landscape.

Temptations befall the dreamer in using old houses or sites that have charm and interest, without consulting their daily life and mode of access, especially if in a hilly country. My experience is that it is much better to measure old stone houses or decrepit buildings, burn or blow them up, and rebuild the duplicate much cheaper than to attempt to remodel the old.

The old house before alteration.

In my case, in the hills far from any town or village, it was necessary to get some Italian laborers, formerly working in a railroad-construction gang, without experience or knowledge, to erect the main walls and partitions of the fireproof house, with cement floors and roof, as shown in the photographs. My previous experience in masonry was occasionally noticing men in the streets of New York wheeling barrels of concrete into a building, or down some subway hole, but these common laboring men were helpful, and I knew what I wanted when I saw it constructed.

We had determined that our windows should be of leaden panes, based on the mediæval, size of glass 4¼ inches square and the diamonds 7½ by 5 inches, throughout the house, instead of the magnificent and gorgeous plate-glass windows representing my earlier desires. The window-sill-frame manufacturers said that I would have no trouble in making the cement recesses which would allow the windows and the screens to set in it if I came within ⅛ of an inch of the actual measurements required, instead of 8 inches, which latter margin I considered a fair one for my order of intelligence.

The actual building of the house began after we had assured ourselves of the water-supply from some underground springs or open reservoir of concrete.

My wife and daughter assisted most effectually in suggestions and color schemes. To make our work certain, they built a model pasteboard house, making the walls a cement color and the cement roof red, with the windows in their proper location. We then had a facsimile of the house we proposed to build, and I am free to admit I could not have built the house without this model, as the number of windows and placements between the crude plans I had drawn for each floor needed the reinforced information of this model pasteboard house to put my plans into effect, also the radical changes made during construction.

Having had some practical experience, the plumbing problems and heating arrangements of hot water were easy, although the laborers had a way of knocking the pipes out of the walls and filling them with refuse, which showed that there were difficulties which no mind could anticipate.

The general site was on a shoulder of a mountain, surrounded by five small mountains or hills, and we began blasting in November, 1913, and continued in the cellar and surrounding parts of the building until June, 1914. We used the stones of part of the old house and fence-rows adjoining for the outside walls, which were 16 inches thick, plus 3-inch split tiles placed upon cement plaster as an air space against cold or heat.

Timbered ceilings were cut in adjacent woods, and all the inside partitions were 3 or 4 inch tile throughout the house.

All windows, with one or two exceptions, had embrasures or splays of 9 inches, to admit more light, and the floors were made generally of 4-inch concrete, twenty-five shovelfuls of coarse sand to a bag of cement, or about 4½ to 1 mixture.

Regarding a concrete roof. I took special pains to make inquiries as to the feasibility of concrete, at which some shook their heads and were doubtful, and the cement manufacturers were equally uncertain. I put in 5-by-6-inch heavy oak timbers throughout the roof, with oak boards planed on one side, which helped to protect the condensation feature, but omitted to make a ½-inch crack of my own over every 10 feet of the roof, which I have subsequently done in other buildings with perfect success. The roof has many cracks, so small and narrow that it is difficult, in expansion and contraction, to fill in this roof of 100 by 60 feet and locate them, but the cheapest form of asphalt-road tar, liquefied with a little cheap lubricating oil, repairs the damage. The ½-inch cracks should have been made with a bevelled board, with a little sawdust at the bottom, and asphalt run in between the cracks that will expand and contract with the heat and cold and keep everything absolutely tight.

The only wood in the house is in doors and furniture.

The baseboard of the rooms is of cement and the upper walls of rough plaster, which are either painted or tinted.

The floors are tiled by second rejected roof-tiles, which

CHINESE ROOM.

LIBRARY WING AND TERRACE.

"TAMARACKS," RESIDENCE, FRANKLIN G. COLBY, ANDOVER, N. J.

STAIR HALL.

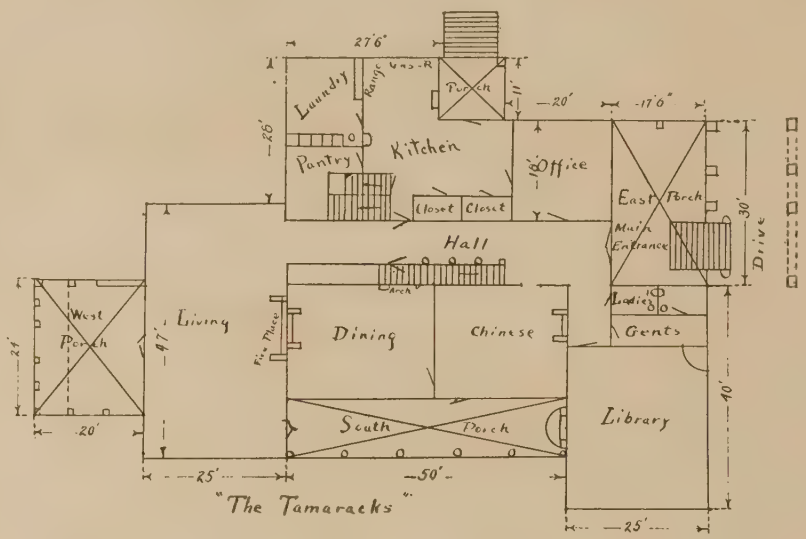
"TAMARACKS," RESIDENCE, FRANKLIN G. COLBY, ANDOVER, N. J.

CORNER IN LIBRARY.

gives you an idea of a mediæval building at once. These were put in on account of their low cost.

It took us about a year to get the main structure up, and as the roof went on I was somewhat anxious lest the largeness of the home should be a disfigurement on the landscape, but was too tired to walk away to get the effect. I was taken over some fields in October, and found that the wide, overhanging eaves and color scheme blended very well indeed with the country, not only with the fall landscape and oak-leaves, but in winter or spring with the green, as the sand used gave a yellow, warm tint to the outside cement without the addition of any other color.

The library decorations were made by my daughter, based on the old mediæval bookcases in Oxford, Cambridge, and European cities, and there is also a modified form of the Davanzatti Palace chimney. The 4-by-42-feet mural decorations of *The Legend of Melasine* were also painted by her.



The living-room, where we constantly live before the 12-foot fireplace, was designed by my wife, more after the French types, and the adaptation of the chimney and the decorations are of a period of about Francis I, who hired Italian decorators.

The ceilings throughout the lower floors are a close imitation of the Cluny Museum, ceilings with 12-inch-square solid main timber, with 9-by-6-inch cross timbers, taken from the adjacent woods. They made a very cheap and effective floor and ceiling.

The studio covers two floors, 25 by 40 feet. The roof trusses were after photographs of an old French monastery interior, and similar to those in the banqueting-room in Haddon Hall, very early and primitive, of simple design, which were the only ones I was able to follow and execute.

In the cellar we have a portion for reserve cistern-water, milk-house, cold-storage room, vegetable cold-storage rooms, heating, besides a fair amount of the granite mountain left unremoved.

The eastern or main front door is guarded by two Roman lions, in cement, opening on a 12-foot hall that has a clear view for 85 feet east and west through an 8-foot window in the living-room.

Very necessary rooms are the ladies' and gentlemen's lavatories and coat-rooms, next to the main entrance-door, the idea being taken from English houses.

The southern porch and colonnade give all that was expected of them in bad weather and a comfortable place to sit in the sun during the winter.

The grounds were laid out by my wife after carefully studying our possibilities, and executed with the remnants of débris, rocks and stones, covered with cement, from near-by land, and use of cement ornaments.

The pergola, while differing somewhat from the Italian types, gives a finished appearance to the garden. The moulded cross-ties are in cement.

Outside of the immediate garden, all the rest of the surrounding country is given over to nature and wildness.

The building itself, after the recent severe winters and summers, has proved that it is equally indifferent to heat or cold or gales, without any effort or strain upon the heating apparatus, and in the summer, for comfort, the only necessity is to keep the windows and doors closed most of the time. There is no dampness within the building; the atmosphere within the house is similar to the freshness of the outside atmosphere, no matter what the temperature may be.

Everything done had a cause and effect. There was no false work put in for appearances anywhere in the interior or exterior.

Louisville's Million-Dollar Factory Fund

AT the annual meeting of the Louisville Industrial Foundation, the Million-Dollar Factory Fund of Louisville, the general manager, Tampton Aubuchon, reported to the stockholders that during the past two years twenty new factories had been located in Louisville as the result of the foundation's efforts. The new factories employ 3,000 operatives and have an annual pay-roll of $2,000,000. Twelve factories were reported for 1917, and eight new peace-time industries were reported for 1918. These factories were acquired by the foundation at a net expense of $15,000. It was shown that for every dollar expended, the city acquired business transactions bringing thirteen dollars profit annually.

The meeting was attended by a large percentage of its stockholders. There are 3,200 stockholders in the foundation, and the vote for the Board of Directors showed that 2,500 shares of stock were voted. The directors who had charge of the work for the past two years were re-elected.

The Louisville Industrial Foundation, popularly known as the Million-Dollar Factory Fund, was organized in July, 1916, capitalized at $1,000,000, and its purpose is to assist in the industrial development of Louisville. In addition to bringing new industries to the city it also assists in the development of established industries.

New Jordan School, Waterford, Conn. Louis H. Goddard, Architect.

The New Jordan School Building at Waterford, Conn.

By Chas. F. Dingman, Assoc. M. Am. Soc. C. E.

THE Jordan school building, recently completed for the town of Waterford, Conn., is an unusually interesting building, not only by reason of the foresight used in building a building larger than the immediate needs of the district, but also on account of the form of contract under which the work was done.

The new building was built to replace an old brick building which was destroyed by fire on February 10, 1918, supposedly of incendiary origin, and which burned out practically the entire interior of the old building and damaged a great deal of the stone trimmings, as well as weakening the old walls so much that it was determined better judgment to tear them down and use the brick than to attempt to use them as they stood.

Even though Jordan is a very sparsely settled community the old building had been rather crowded, and it was determined to increase the size of certain rooms and add three more so as to accommodate the rapidly growing attendance. The comparison between the plan dimensions of the old and new buildings is shown on the accompanying drawings.

The school board selected as architect Mr. Louis H. Goddard, a resident of the town of Waterford, to take charge of the work, and he presented a design of a thoroughly modern and up-to-date schoolhouse, one which is of the type of a city school rather than an old country district school.

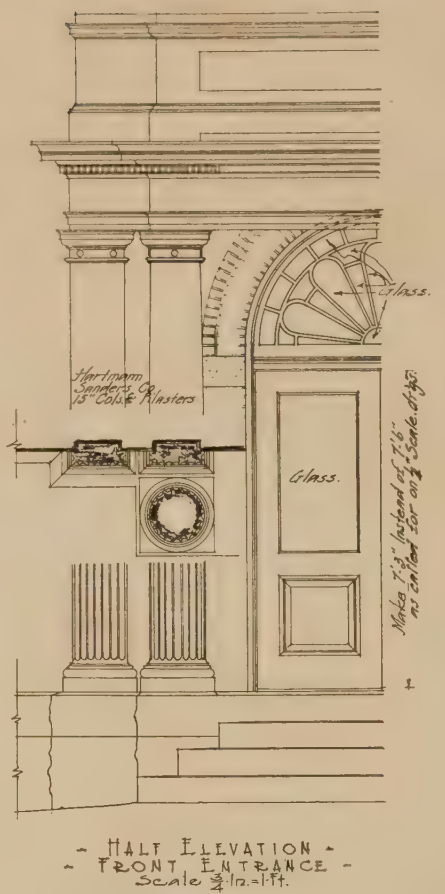
The new school provides nine large classrooms, as indicated on the plans, all of which are trimmed in oak, with all plastered surfaces tinted light bluish-green, natural-slate blackboards being used.

Provision is made for an assembly-hall on the second floor by using a folding partition between two of the classrooms, the partition being of the usual type, with blackboards, so that it can be used in the regular manner when closed.

The construction of the building itself is the usual type of brick walls, with wooden floor beams, etc., brick cross walls, and gypsum block partitions, the entire building being designed with the idea of providing as much protection against the spread of fire as would be practicable without going to the expense of an entirely fireproof building. All classroom and corridor floors are double, consisting of a rough floor of yellow pine, a layer of deadening felt, and a finished floor of tongued-and-grooved maple.

The stairs are of wrought iron with concrete fill treads having a nonslipping surface. The exterior of the building is of Barrington "Harvard" brick and the interior of the stairways is laid in fire-flashed Iron Clay brick. The exterior basement walls are composed of granite ashlar, using the stone from the old building and filling out with new Monson (Mass.) granite. The exterior stone trim is also of Monson granite, but the cornice and parapet are of white pine.

Inasmuch as there is no public water-supply or sewerage system available at Jordan village, it was necessary that particular attention be paid to these features. In the old school outside closets had been used, but the board decided that modern plumbing should be installed in this building; therefore a brick cesspool was built, about one hundred feet from the building, and the sewerage from all the plumbing fixtures is disposed of into it. Automatic seat-flushing type of closets was used throughout.



- HALF ELEVATION -
- FRONT ENTRANCE -
Scale 1/2 in. = 1 ft.

Water-supply is provided for by an artesian well sunk under the school, from which the water is pumped into a one-thousand-gallon tank by means of an electrically operated pneumatic "Paul" pumping system, which is so connected that the motor is cut in when the water pressure is down to fifty pounds, and cut out when it is up to sixty pounds.

The heating system was constructed under the following specifications:

"The apparatus must be guaranteed by the contractor to warm the building to 70 degrees in zero weather, and to be free of all defects for one entire school year after completion.

"The ventilation must be adequate to supply fresh air to each classroom to the amount of 30 cubic feet per minute for each pupil, when the difference between outside and inside temperature is not less than 40 degrees, and that the vitiated air be exhausted from each classroom in an amount equal to 85 per cent of the supply, with a velocity not greater than 400 cubic feet per minute, and a difference of not over 3 degrees in the plans of breathing in any part of each classroom."

Electric bells, electric wiring, etc., were provided in accordance with the usual specifications.

A particularly interesting feature in connection with the construction of this school is the form of contract which was used. The town of Waterford has had some rather costly construction experience in the past, in one instance practically two years were consumed in the construction of a very moderate-sized building, and the citizens of the town, as well as the school board, were loath to award the contract on the old lump-sum basis, because they feared that they would not have the building completed so that it might be occupied for the opening of the fall school term.

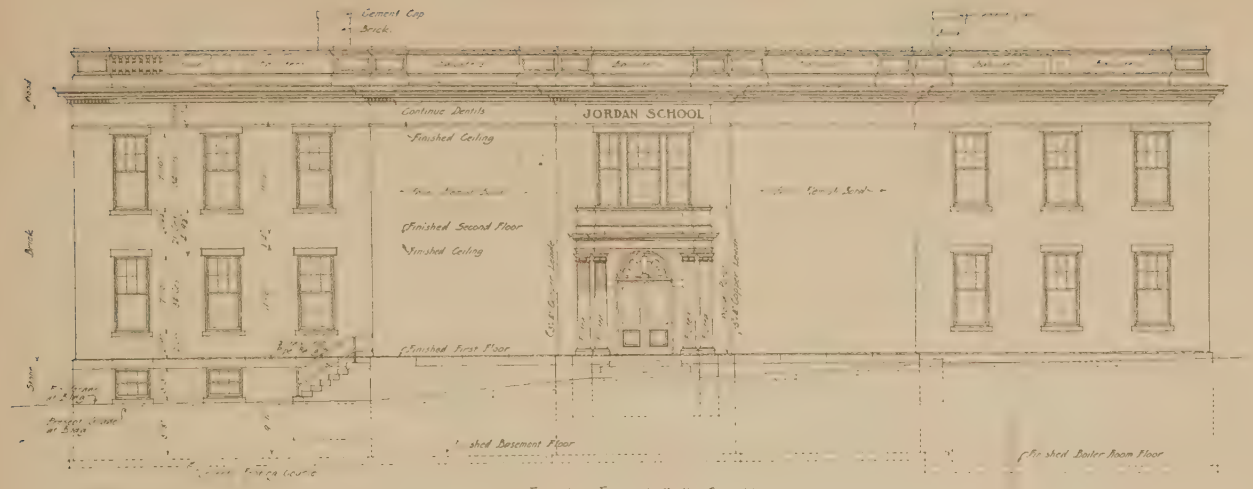
The great amount of war work being done at New London, which Waterford adjoins, at that time had made all kinds of construction labor scarce and high-priced, and the same was true of most building materials. This added to the doubt as to the feasibility of a lump-sum contract. Accordingly, after receiving and considering several lump-sum bids which were submitted, a special town meeting was called and the entire matter put before the voters. After considerable discussion they voted to award the contract, on the basis of actual cost plus a fixed fee, to the Flynt Building Organization of New York City and Palmer, Mass. They, fortunately, were able to put the work through in accordance with the original time schedule, and it is notable that only one-half hour of overtime wages was paid.

The final cost was as follows:

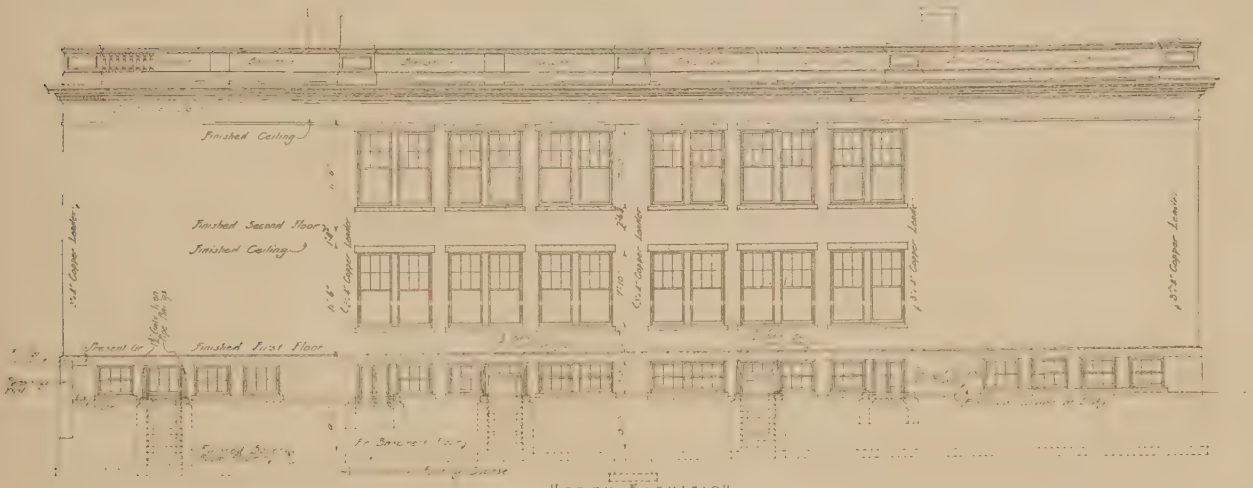
	TOTAL	PER SQUARE FOOT OF BLDG.	PER CUBIC FOOT OF BLDG.
Plumbing	$4,100	$.265	$.02
Heating	5,280	.341	.026
Roofing	1,830	.118	.009
Painting	1,575	.102	.008
Electrical	990	.064	.005
Iron and steel	4,700	.305	.024
Finished carpenter work	10,200	.662	.051
Rough carpenter work	6,171	.399	.031
Plaster	3,720	.241	.018
Granite	4,650	.301	.023
Brick and concrete work	27,200	1.759	.135
Total	$70,416	$4.557	$0.350

	PER CLASS-ROOM	PER PUPIL
Plumbing	$455.55	$9.12
Heating	586.65	11.73
Roofing	203.34	4.07
Painting	175.00	3.50
Electrical	110.00	2.20
Iron and steel	522.22	10.44
Finished carpenter work	1,133.34	22.67
Rough carpenter work	685.66	13.71
Plaster	413.34	8.27
Granite	516.67	10.34
Brick and concrete work	3,022.23	60.43
Total	$7,824.00	$156.48

The work was at all times under the supervision of Mr. Louis H. Goddard, architect, and Mr. Selden B. Manwaring, chairman of the Building Committee of the Waterford School Board, while Mr. L. H. Bogue, general superintendent, represented the builders on the work.



FRONT ELEVATION - SOUTH



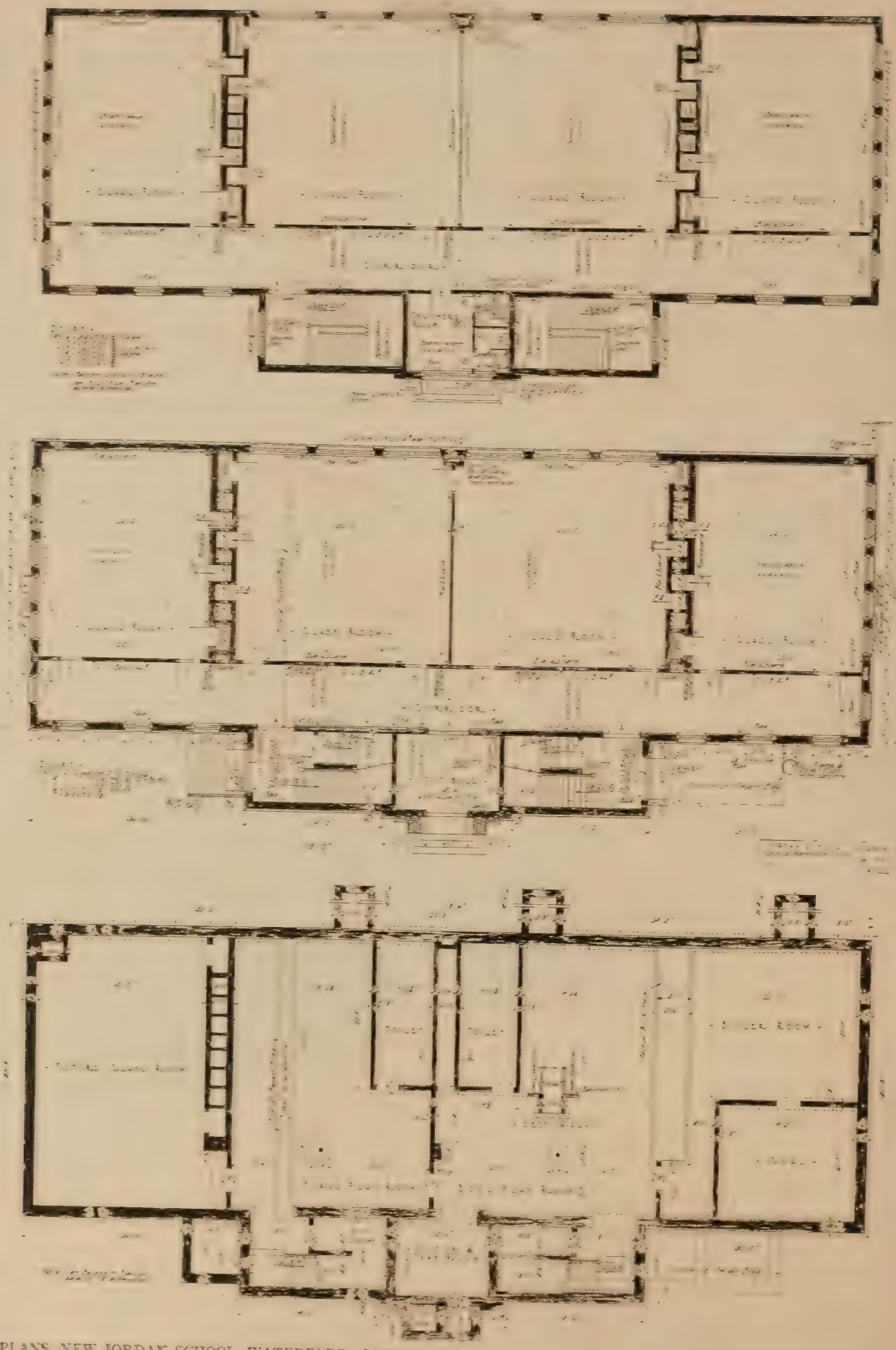
NORTH ELEVATION

WEST ELEVATION

EAST ELEVATION

ELEVATIONS, NEW JORDAN SCHOOL, WATERFORD, CONN.

Louis H. Goddard, Architect.



PLANS, NEW JORDAN SCHOOL, WATERFORD, CONN.

Louis H. Goddard, Architect.

What a New York Club Did with Its Back Yards

By Edward C. Dean, Architect

THE little courtyard that is now the focal point of the enlarged Cosmopolitan Club was formerly the usual unsightly back yards of two old residences facing on Lexington Avenue. A high wall on the north party-line screens the adjacent property and forms the back of the vaulted loggia whose arched openings face the court. Adjacent to the loggia an open corridor with arches also giving on to the court brings one to the two little reception and waiting rooms that were formerly the basement kitchens of the old residences. All of the new construction is of common red brick laid with a band of narrow tile edge at every fifth course, projecting very slightly but quite irregularly beyond the surface of the brick wall. This gives a little shadow stratification that adds interest to the surface of the wall. All of the brickwork was finally given two coats of a pink whitewash stain. Old, irregular flagstones laid with wide joints in which grass has been planted form the paving of the yard. Flagstones were also used as copings to the parapet walls, and the irregular slates of the roofs were laid in a thick bed of cement without striking the joints, which gives the appearance of an old roof vibrating with shadow and color.

Lounging-room.

The walls and ceilings of all the courtyard rooms are finished in rough, whitewashed plaster with here and there an occasional dark-wood beam or a heavily panelled door to give accent.

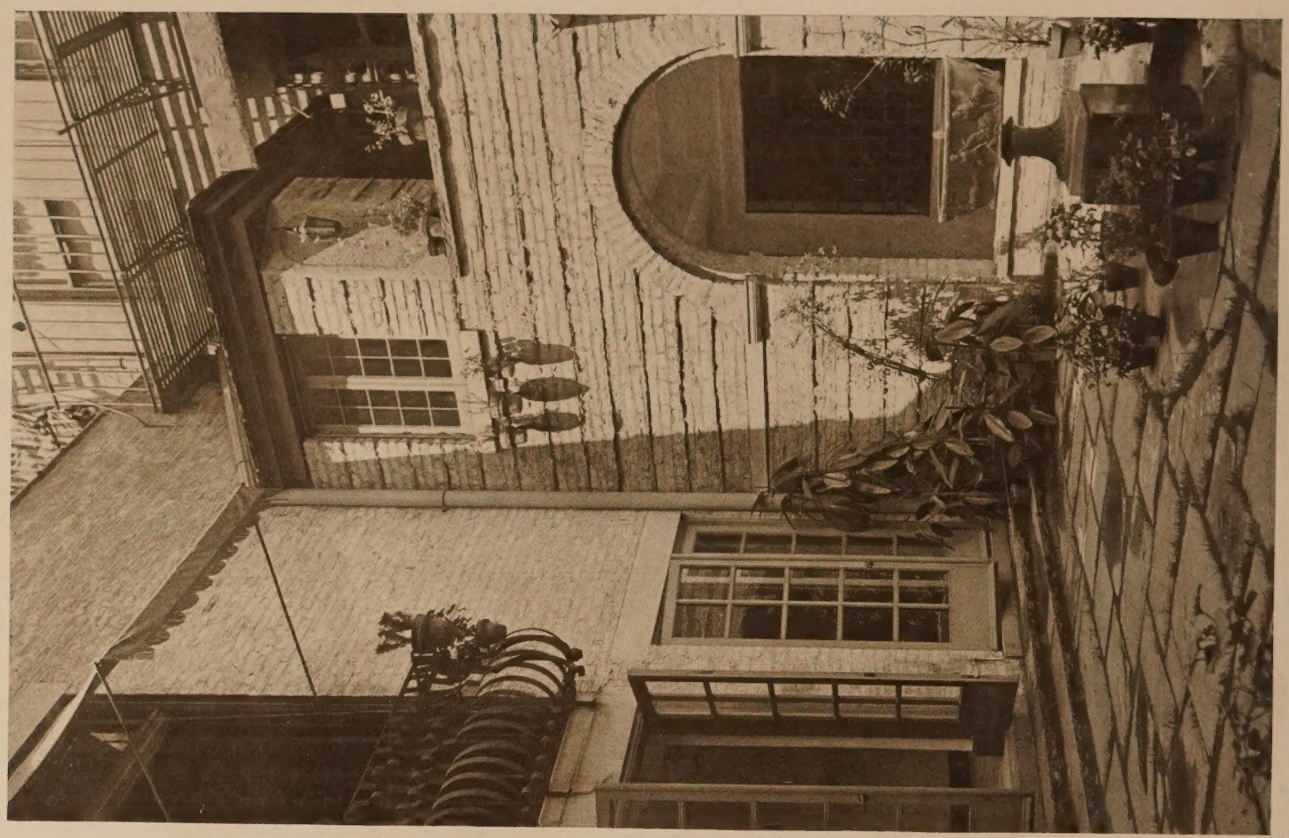
Panels of old ironwork were utilized in masking radiator openings and elsewhere for decorative effect. The rough, whitewashed walls form a striking background for the old Spanish and Italian furnishings with their bits of old velvet and brocade. A dark floor of small, hand-made tiles in varying shades of earth colors forms an excellent foil to the walls and ceiling.

The loggia has a patterned floor of black slate with narrow white marble insets, and from its western end steps lead down into the large assembly-room under the old studio building, formerly a church, whose high, austere walls and Gothic details form the western side of the little courtyard. A marble fountain from an old villa garden in the north of Italy forms the central feature of the courtyard.

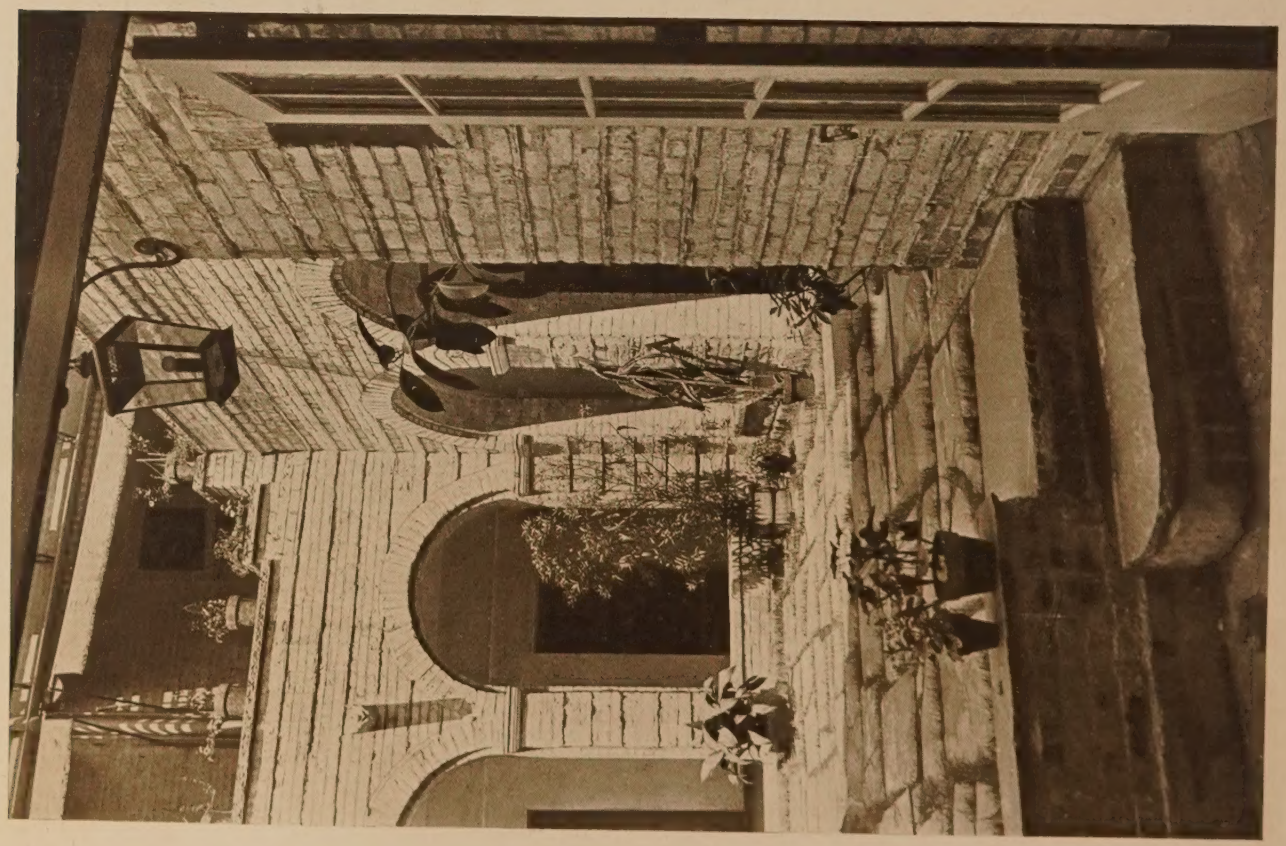
In this quarter of New York, congested with the traffic of the Grand Central neighborhood, it is a welcome release from the noise of the street to step into the seclusion of this little club with its reception-rooms and its quiet new library giving on to the courtyard, a yard formerly to be screened from view wherever possible and now the chief centre of attraction of the clubhouse.

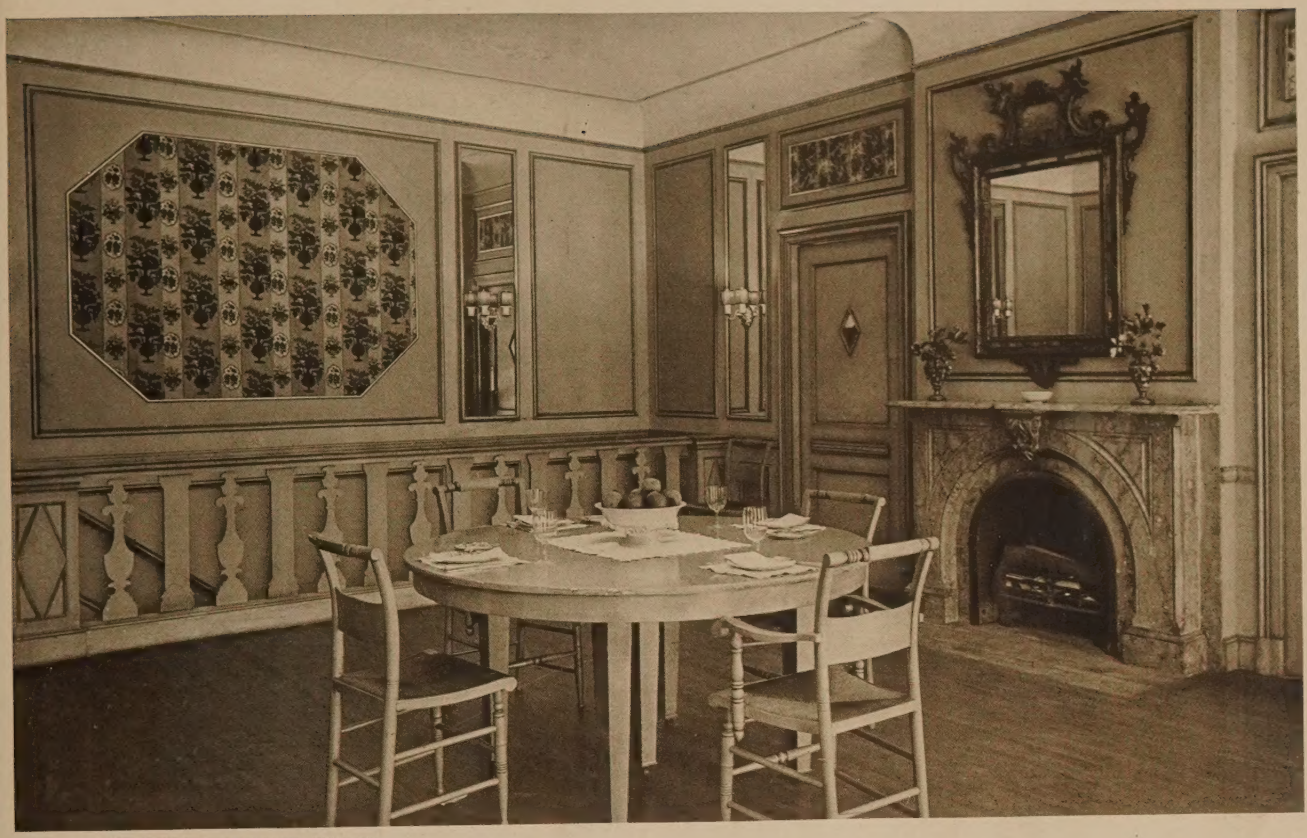
Rudolph Falkenrath, Jr., Architect, 414 Deseret Bank Building, Salt Lake City, would be glad to receive manufacturers' catalogues.

Lawlor & Haase, Architects, after 17 years' location at 69 Wall Street, New York, have moved to No. 15 West 38th Street, where they shall be pleased to receive samples for office display.



COURT, COSMOPOLITAN CLUB, 133 EAST 40TH STREET, NEW YORK. E. C. Dean, Architect.





LUNCHEON-ROOM, SECOND FLOOR.

LIVING-ROOM.

E. C. Dean, Architect.

COSMOPOLITAN CLUB, 133 E. 40TH STREET, NEW YORK.